

=> FILE REG

FILE 'REGISTRY' ENTERED AT 10:46:06 ON 28 APR 2005

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STRUCTURE FILE UPDATES: 27 APR 2005 HIGHEST RN 849400-77-7

DICTIONARY FILE UPDATES: 27 APR 2005 HIGHEST RN 849400-77-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> FILE HCAPLU

FILE 'HCAPLUS' ENTERED AT 10:46:11 ON 28 APR 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE COVERS 1907 - 28 Apr 2005 VOL 142 ISS 18

FILE LAST UPDATED: 27 Apr 2005 (20050427/ED)

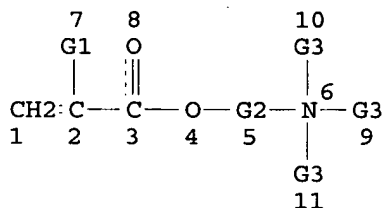
New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE
L3

STR

Ak-Cb
@12 @13



*This structure query
covers formula 1 or 2*

*5,320 polymers
with this
as one of the
monomers in
the polymer*

VAR G1=H/ME
VAR G2=AK/CB/12-4 13-6/13-4 12-6
VAR G3=AK/CB
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE
L5 SCR 2043
L7 5320 SEA FILE=REGISTRY SSS FUL L3 AND L5
L13 STR

1 A -1

*← anion subset search with this.
A can be anything except Hydrogen*

NODE ATTRIBUTES:
CHARGE IS E-1 AT 1
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 1

5,203 polymers

STEREO ATTRIBUTES: NONE

L15 5203 SEA FILE=REGISTRY SUB=L7 SSS FUL L13
L24 1798 SEA FILE=REGISTRY ABB=ON L15 AND 1-3/NC
L26 3757 SEA FILE=HCAPLUS ABB=ON L24
L32 147 SEA FILE=HCAPLUS ABB=ON L26 (L) (INKJET? OR INK? (L) JET?)
L33 105 SEA FILE=HCAPLUS ABB=ON L32 AND SHEET?
L35 4 SEA FILE=HCAPLUS ABB=ON L33 AND COLOR? (3A) LAYER?
L38 47 SEA FILE=HCAPLUS ABB=ON L32 (L) SHEET?
L39 44 SEA FILE=HCAPLUS ABB=ON L38 AND REPROG?/SC, SX
L41 36 SEA FILE=HCAPLUS ABB=ON L32 (L) PAPER?
L42 28 SEA FILE=HCAPLUS ABB=ON L41 AND REPROG?/SC, SX
L43 72 SEA FILE=HCAPLUS ABB=ON L39 OR L42
L44 72 SEA FILE=HCAPLUS ABB=ON L43 OR L35

*limited number of components
in the polymer to
3 or less*

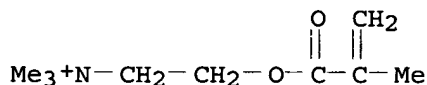
72 Chemical Ab. references with utility

=> D L44 IBIB ABS HITIND HITSTR

L44 ANSWER 1 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:299367 HCAPLUS
TITLE: Ink jet recording sheet and printing method using it
INVENTOR(S): Oya, Hidenobu; Kaga, Makoto; Kudo, Kei; Kashimura, Shinsaku; Fukuda, Teruyuki; Ogasawara, Yuki

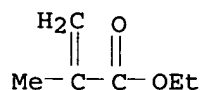
PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|--|----------|-----------------|----------|
| JP 2005088410 | A2 | 20050407 | JP 2003-325928 | 20030918 |
| PRIORITY APPLN. INFO.: | | | JP 2003-325928 | 20030918 |
| AB The sheet has (A) an optional under ink receiving layer and (B) a glossy ink receiving layer containing colloidal silica, a hardener, and polymer particles having a substituent reacting with the hardener on the surface. Images are recorded on the sheet by using resin-containing ink. The ink receiving layers (A and B) can be coated simultaneously, and the sheet shows high gloss, ink absorbing rate, and anticracking property. | | | | |
| IC | ICM B41M005-00 ICS B41J002-01 | | | |
| CC | 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | |
| IT | 21645-51-2, Aluminum hydroxide 108188-68-7 130960-31-5, PVA 217 | | | |
| | RL: TEM (Technical or engineered material use); USES (Uses) (under ink receiving layer containing; ink-jet printing sheet containing polymer particle with substituent reactable with hardening agent) | | | |
| IT | 108188-68-7 | | | |
| | RL: TEM (Technical or engineered material use); USES (Uses) (under ink receiving layer containing; ink-jet printing sheet containing polymer particle with substituent reactable with hardening agent) | | | |
| RN | 108188-68-7 HCAPLUS | | | |
| CN | Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME) | | | |
| CM | 1 | | | |
| CRN | 5039-78-1 | | | |
| CMF | C9 H18 N O2 . Cl | | | |



● Cl⁻

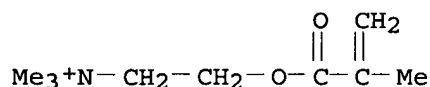
CM 2
 CRN 97-63-2
 CMF C6 H10 O2



=> D L44 IBIB ABS HITIND HITSTR 2-72

L44 ANSWER 2 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2005:275553 HCAPLUS
 DOCUMENT NUMBER: 142:345205
 TITLE: Ink-jet printing method by controlling nozzle pitch
 INVENTOR(S): Fukuda, Teruyuki
 PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|----------|
| JP 2005081549 | A2 | 20050331 | JP 2003-312427 | 20030904 |
| PRIORITY APPLN. INFO.: | | | JP 2003-312427 | 20030904 |
| AB | In the ink-jet printing using (A) an ink with solvent content 10-60 weight% and containing a water-soluble dye and resin fine particle dispersion and (B) a porous ink receiving sheet, the nozzle pitch of the printer head is ≥ 180 dpi and main scanning dot resolution is ≥ 360 dpi. Glossy and high resolution images with good resistance to ozone, abrasion and water are obtained. | | | |
| IC | ICM B41M005-00 ICS B41J002-01; C09D011-00 | | | |
| CC | 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | |
| IT | 108188-68-7 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (ink-jet printing sheet containing cationic mordant) | | | |
| IT | 108188-68-7 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (ink-jet printing sheet containing cationic mordant) | | | |
| RN | 108188-68-7 HCAPLUS | | | |
| CN | Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME) | | | |
| CM | 1 | | | |
| CRN | 5039-78-1 | | | |
| CMF | C9 H18 N O2 . Cl | | | |

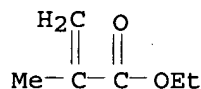


● Cl⁻

CM 2

CRN 97-63-2

CMF C6 H10 O2



L44 ANSWER 3 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:33770 HCAPLUS

DOCUMENT NUMBER: 142:123217

TITLE: Sizes and recording paper using them with excellent color developability and no ink spread or strike through

INVENTOR(S): Yuasa, Toshiya

PATENT ASSIGNEE(S): Canon Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2005009031 | A2 | 20050113 | JP 2003-174918 | 20030619 |
| PRIORITY APPLN. INFO.: | | | JP 2003-174918 | 20030619 |

OTHER SOURCE(S): MARPAT 142:123217

AB The sizes contain cationic polymers and nonionic surfactants R10(CH₂CH₂O)_nH (R1 = C4-8 alkyl; n = 2-5). Thus, ink-jet paper coated with a 50:47:1:2 mixture of quaternary ammonium-containing acrylic polymer, trimethylene-type ionene, Blaunon EH 2 (polyethylene glycol 2-ethylhexyl ether, HLB 9.5), Soyafibe SF 200 (water-soluble soybean polysaccharide) gave a high-quality image.

IC ICM D21H021-16

ICS B41M005-00; D21H019-10; D21H019-20; D21H019-24

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 43

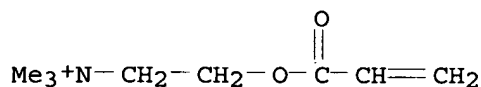
IT 39660-17-8 54076-97-0

RL: TEM (Technical or engineered material use); USES (Uses)

(cationic polymer; sizes containing polyoxyethylene monoalkyl ethers and cationic polymers for ink-jet recording

paper with color developability and no ink spread or

strike through)
 IT 54076-97-0
 RL: TEM (Technical or engineered material use); USES (Uses)
 (cationic polymer; sizes containing polyoxyethylene monoalkyl ethers and
 cationic polymers for ink-jet recording
 paper with color developability and no ink spread or
 strike through)
 RN 54076-97-0 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride,
 homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 44992-01-0
 CMF C8 H16 N O2 . Cl



● Cl⁻

L44 ANSWER 4 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:1125346 HCAPLUS
 DOCUMENT NUMBER: 142:82322
 TITLE: Ink jet recording sheet containing specific amphoteric
 polymer and polyvalent metal salt
 INVENTOR(S): Takashima, Masanobu; Yoshimura, Kosaku; Nagata, Kozo
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| JP 2004358784 | A2 | 20041224 | JP 2003-159153 | 20030604 |
| PRIORITY APPLN. INFO.: | | | JP 2003-159153 | 20030604 |
| AB The sheet has an ink receiving layer containing at least (1) the amphoteric polymer having both (a) a cationic group containing ≥1 of a tertiary amino group and a quaternary ammonium salt and (b) an anionic group and (2) the polyvalent metal salt. The sheet shows high gloss and improved ink absorbency, antibleeding, light stability, and ozone resistance. | | | | |
| IC ICM B41M005-00 | | | | |
| ICS B41J002-01 | | | | |
| CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| Section cross-reference(s): 38 | | | | |
| IT 5244-34-8 26338-17-0 79702-43-5 79704-34-0 | | | | |
| 89698-26-0 125044-69-1 147398-77-4 188488-06-4 | | | | |
| 812652-53-2, Superflex 600B | | | | |
| RL: MOA (Modifier or additive use); TEM (Technical or engineered material | | | | |

use); USES (Uses)

(ink jet recording sheet containing amphoteric polymer and polyvalent metal salt)

IT 26338-17-0 79702-43-5 125044-69-1
147398-77-4

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(ink jet recording sheet containing amphoteric polymer and polyvalent metal salt)

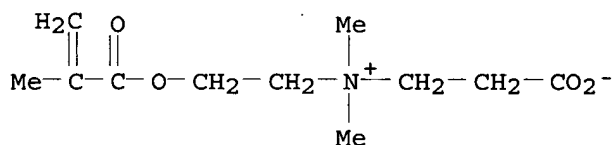
RN 26338-17-0 HCAPLUS

CN Ethanaminium, 2-carboxy-N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, inner salt, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 24249-95-4

CMF C11 H19 N O4



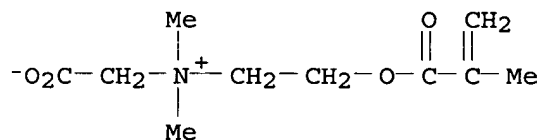
RN 79702-43-5 HCAPLUS

CN Ethanaminium, N-(carboxymethyl)-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, inner salt, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 62723-61-9

CMF C10 H17 N O4



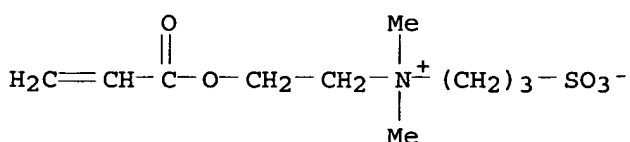
RN 125044-69-1 HCAPLUS

CN 1-Propanaminium, N,N-dimethyl-N-[2-[(1-oxo-2-propenyl)oxy]ethyl]-3-sulfo-, inner salt, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 88992-91-0

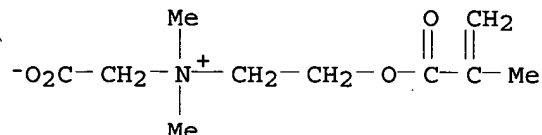
CMF C10 H19 N O5 S



RN 147398-77-4 HCAPLUS
 CN Ethanaminium, N-(carboxymethyl)-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, inner salt, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

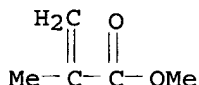
CM 1

CRN 62723-61-9
 CMF C10 H17 N O4



CM 2

CRN 80-62-6
 CMF C5 H8 O2



L44 ANSWER 5 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:1014079 HCAPLUS
 DOCUMENT NUMBER: 142:13698
 TITLE: Ink composition, processing solution, ink-jet printing sheet, method, ink head, and printing apparatus
 INVENTOR(S): Kamoto, Takanori; Tsubaki, Yorihiisa; Aoki, Momomi; Nakatsu, Hiromi; Suzuki, Kiyota
 PATENT ASSIGNEE(S): Sharp Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2004330695 | A2 | 20041125 | JP 2003-131759 | 20030509 |
| PRIORITY APPLN. INFO.: | | | JP 2003-131759 | 20030509 |

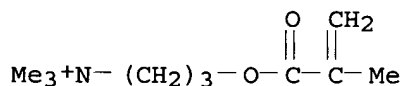
AB In the printing sheet, a support is coated with or soaked in a solution of silicone-containing vinylpyrrolidone derivative copolymer (A). The processing solution comprises A and water. The ink, containing a dye or a pigment and water, ppts. on the reaction with A, and an ink set comprises ≥2 of the inks. The ink-jet printing method is characterized by (1) using the printing sheet, (2) adhering the processing solution to the sheet before, simultaneously, or after printing by ink. The ink-jet printing apparatus has means for adhering the processing soln. to the sheet. The ink head comprises an ink tank, ink chamber for jetting the ink, heater or piezoelec. element for pressing the ink for jetting, and electrodes for

the element or the heater. Clear, high d. images without bleeding and color contamination are obtained.

IC ICM B41M005-00
ICS B41J002-01; C09D011-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 42
IT 9004-73-3D, Polymethylsiloxane, vinylpyrrolidone copolymer derivs.
49718-23-2D, vinylpyrrolidone copolymer derivs. **90386-02-0D**,
polymethylsiloxane derivs. 308103-25-5, Gafquat HSi
RL: TEM (Technical or engineered material use); USES (Uses)
(ink-jet printing sheet processed with
solution containing silicone-containing polyvinylpyrrolidone)
IT **90386-02-0D**, polymethylsiloxane derivs.
RL: TEM (Technical or engineered material use); USES (Uses)
(ink-jet printing sheet processed with
solution containing silicone-containing polyvinylpyrrolidone)
RN 90386-02-0 HCAPLUS
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-,
chloride, polymer with 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

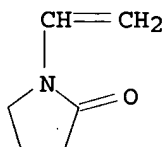
CRN 55918-38-2
CMF C10 H20 N O2 . Cl



● Cl⁻

CM 2

CRN 88-12-0
CMF C6 H9 N O



L44 ANSWER 6 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:963082 HCAPLUS
DOCUMENT NUMBER: 141:386445
TITLE: Ink-jet printing sheet containing cationic polymer
INVENTOR(S): Tsujibata, Shigetomo
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| JP 2004314475 | A2 | 20041111 | JP 2003-112629 | 20030417 |

PRIORITY APPLN. INFO.: JP 2003-112629 20030417

AB The sheet comprises a support coated with an ink receiving layer containing fine particles, water-soluble resin, and a cationic polymer having low critical solution temperature (with water) 0-100°. The sheet gives high d. and resolution images with good storage stability under high temperature and moisture conditions.

IC ICM B41M005-00
 ICS B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38

IT 38317-07-6P, 2-N,N-Dimethylaminoethyl acrylate-N-isopropylacrylamide copolymer 102502-93-2P, 2-(Methacryloyloxy)ethyltrimethylammonium chloride-N-isopropylacrylamide copolymer 151197-93-2P, 3-N,N-Dimethylaminopropylacrylamide-N-isopropylacrylamide copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (ink-jet printing sheet containing cationic polymer having controlled critical solution temperature)

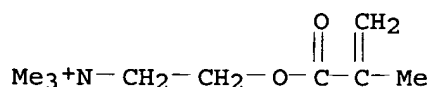
IT 102502-93-2P, 2-(Methacryloyloxy)ethyltrimethylammonium chloride-N-isopropylacrylamide copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (ink-jet printing sheet containing cationic polymer having controlled critical solution temperature)

RN 102502-93-2 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with N-(1-methylethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

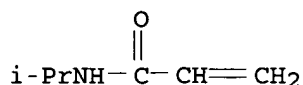
CRN 5039-78-1
 CMF C9 H18 N O2 . Cl



● Cl⁻

CM 2

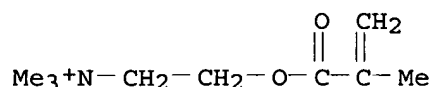
CRN 2210-25-5
 CMF C6 H11 N O



L44 ANSWER 7 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:957244 HCAPLUS
 DOCUMENT NUMBER: 141:386436
 TITLE: Ink-jet printing sheet containing block copolymer
 INVENTOR(S): Yoshimura, Kosaku; Nagata, Kozo
 PATENT ASSIGNEE(S): Fujii Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| JP 2004314474 | A2 | 20041111 | JP 2003-112628 | 20030417 |
| PRIORITY APPLN. INFO.: | | | JP 2003-112628 | 20030417 |
| AB The sheet comprises a support coated with an ink receiving layer containing block copolymer having water-soluble block and cationic block. The sheet shows good ink absorption, and gives high d. and resolution images with good storage stability. | | | | |
| IC ICM B41M005-00 | | | | |
| ICS B41J002-01 | | | | |
| CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| Section cross-reference(s): 38 | | | | |
| IT 183743-55-7P, N-[2-(Methacryloyloxy)ethyl]-N,N,N-trimethylammonium chloride-vinyl alcohol block copolymer 784153-11-3P, N-[3-(Acryloylamino)-2-hydroxypropyl]-N,N,N-trimethylammonium chloride-vinyl alcohol block copolymer | | | | |
| RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) | | | | |
| (ink-jet printing sheet containing block copolymer having cationic and water-soluble blocks) | | | | |
| IT 183743-55-7P, N-[2-(Methacryloyloxy)ethyl]-N,N,N-trimethylammonium chloride-vinyl alcohol block copolymer | | | | |
| RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) | | | | |
| (ink-jet printing sheet containing block copolymer having cationic and water-soluble blocks) | | | | |
| RN 183743-55-7 HCAPLUS | | | | |
| CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with ethenol, block (9CI) (CA INDEX NAME) | | | | |
| CM 1 | | | | |
| CRN 5039-78-1 | | | | |
| CMF C9 H18 N O2 . Cl | | | | |

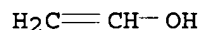


● Cl⁻

CM 2

CRN 557-75-5

CMF C2 H4 O



L44 ANSWER 8 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:772644 HCAPLUS
 DOCUMENT NUMBER: 141:278591
 TITLE: Ink-jet recording sheet
 INVENTOR(S): Taka, Yukako; Ohbayashi, Keiji
 PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan
 SOURCE: Eur. Pat. Appl., 13 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| EP 1459903 | A2 | 20040922 | EP 2004-251491 | 20040316 |
| EP 1459903 | A3 | 20041229 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK | | | | |
| JP 2004284145 | A2 | 20041014 | JP 2003-77671 | 20030320 |
| US 2004185193 | A1 | 20040923 | US 2004-800660 | 20040316 |
| PRIORITY APPLN. INFO.: | | | JP 2003-77671 | A 20030320 |

AB An ink-jet recording sheet comprises a paper support coated with a polyolefin resin on both sides of the paper support, the polyolefin resin-coated paper support has thereon a porous ink receptive layer containing a hydrophilic polymer, and the paper support has a ratio of a Cobb value to a basis weight of not more than 0.05:1 to 0.4:1. The ink-jet recording sheet can minimize curling under variations of ambient humidity as well as edge wave, and also minimize image problems and rubbing by heads during ink-jet printing.

IC ICM B41M005-00

CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 74

IT 9002-88-4, LDPE 9002-89-5, PVA 245 9017-80-5 108188-68-7
 177646-18-3, PVA 235

RL: TEM (Technical or engineered material use); USES (Uses)
 (ink-jet recording sheet)

IT 108188-68-7

RL: TEM (Technical or engineered material use); USES (Uses)
(ink-jet recording sheet)

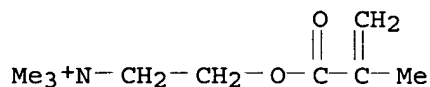
RN 108188-68-7 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

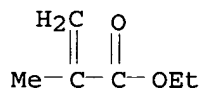


● Cl⁻

CM 2

CRN 97-63-2

CMF C6 H10 O2



L44 ANSWER 9 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:680181 HCAPLUS

DOCUMENT NUMBER: 141:215660

TITLE: Ink-jet printing sheet containing cationic resin

INVENTOR(S): Tsujibata, Shigetomo; Nakano, Ryoichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2004230769 | A2 | 20040819 | JP 2003-23416 | 20030131 |
| PRIORITY APPLN. INFO.: | | | JP 2003-23416 | 20030131 |

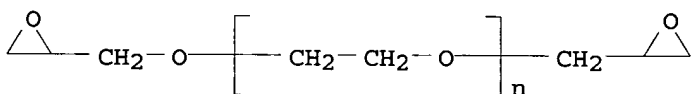
AB The sheet comprises a support coated with an ink receiving layer containing cationic resin R10(R20)mY1A1n and/or A2pY20(R30)qY3A3r [R1 = C1-18 alkyl, C7-18 aralkyl, C6-18 aryl; R2-3 = (branched) C2-4 alkylene; Y1-3 = divalent linkage; A1-3 = unit having cationic group from ≥1 vinyl monomer; m, n, p, q, r ≥2]. High d. and resolution images with good storage stability even under high temperature and moisture conditions are obtained.

IC ICM B41M005-00

ICS B41J002-01
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38
 IT 741281-71-0P 741281-72-1P 741281-73-2P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (ink-jet printing sheet containing cationic resin)
 IT 741281-71-0P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (ink-jet printing sheet containing cationic resin)
 RN 741281-71-0 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with α -(oxiranylmethyl)- ω -(oxiranylmethoxy)poly(oxy-1,2-ethanediyl), block (9CI) (CA INDEX NAME)

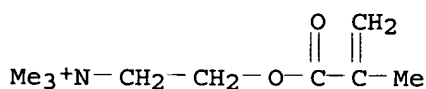
CM 1

CRN 26403-72-5
 CMF (C2 H4 O)_n C6 H10 O3
 CCI PMS



CM 2

CRN 5039-78-1
 CMF C9 H18 N O2 . Cl



● Cl⁻

L44 ANSWER 10 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:507712 HCAPLUS
 DOCUMENT NUMBER: 141:79336
 TITLE: Ink-jet recording sheets providing durable clear images with high light- and ozone fastness
 INVENTOR(S): Tsujibata, Shigetomo; Nakano, Ryoichi
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2004175010 | A2 | 20040624 | JP 2002-345722 | 20021128 |
| PRIORITY APPLN. INFO.: | | | JP 2002-345722 | 20021128 |

AB The sheets comprises, on supports, ink-receiving layers containing cationic polymers having quaternary ammonium groups and ethylenic double bonds. The cationic resins may be represented by (A)m(B)n [A = unit derived from cationic vinyl monomers having quaternary ammonium groups and ethylenic double bonds, B = unit derived from vinyl monomers, m = 20-100 mol%, n = 0-80 mol%, m + n = 100]. Alternatively, the cationic resins are represented by (Q) = unit derived from vinyl monomers having quaternary ammonium groups; R = H, Me; Y = divalent connecting group; R11 = group having ethylenic double bond; p = 20-80 mol%; q = 20-80 mol%). Preferably, the ink-receiving layers contain fine particles, water-soluble resins, and mordants.

IC ICM B41M005-00
ICS B41J002-01; C08K003-00; C08L101-02; C08L101-14

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 43

IT 26161-33-1P, 2-(Methacryloyloxy)ethyltrimethylammonium chloride homopolymer 70642-15-8P 709658-32-2P, 2-Dimethylaminoethyl methacrylate-methyl methacrylate copolymer allyl bromide salt 709658-33-3P 709658-34-4P, Allyl methacrylate-2-(methacryloyloxy)ethyltrimethylammonium chloride copolymer 709658-35-5P, 2-Dimethylaminoethyl methacrylate-methyl methacrylate copolymer butyl bromide salt
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(ink-jet recording sheets containing cationic polymers having quaternary ammonium groups and ethylenic double bonds in ink-receiving layers)

IT 26161-33-1P, 2-(Methacryloyloxy)ethyltrimethylammonium chloride homopolymer 709658-34-4P, Allyl methacrylate-2-(methacryloyloxy)ethyltrimethylammonium chloride copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(ink-jet recording sheets containing cationic polymers having quaternary ammonium groups and ethylenic double bonds in ink-receiving layers)

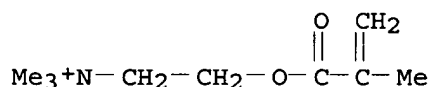
RN 26161-33-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

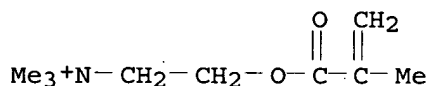


● Cl⁻

RN 709658-34-4 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

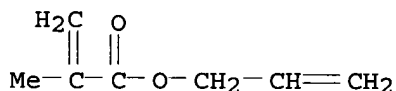
CRN 5039-78-1
 CMF C9 H18 N O2 . Cl



● Cl⁻

CM 2

CRN 96-05-9
 CMF C7 H10 O2



L44 ANSWER 11 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:429871 HCAPLUS
 DOCUMENT NUMBER: 140:431435
 TITLE: Ink-jet recording sheet containing polyamine compound and cationic polymers in ink-receiving layer for improved blur suppression effect
 INVENTOR(S): Nakano, Ryoichi; Koike, Kazuyuki; Kobayashi, Takashi; Tsujibata, Shigetomo; Wakata, Yuichi
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2004148670 | A2 | 20040527 | JP 2002-316502 | 20021030 |
| PRIORITY APPLN. INFO.: | | | JP 2002-316502 | 20021030 |

AB Disclosed is the ink-jet recording sheet having an ink-receiving layer on one side of a support, wherein the ink-receiving layer contains a microparticle such as silica, a polyamine compound, and ≥ 2 types of cationic polymers. At least one of the cationic polymers is polydiallylamine derivative. At least one of the cationic polymers is represented by $[H_2C-CR\{A-(CH_2)_m-N+R_1R_2R_3 X-\}]$ ($R = H, C1-4$ alkyl; $R1-3 = H, alkyl$; $A =$ divalent bonding group; $X- =$ anionic group; and $m =$ integer 1-8). The ink-receiving layer is crosslinked by a crosslinker such as a boric acid.

IC ICM B41M005-00
ICS B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

IT 1318-23-6, Boehmite 1344-28-1, Alumina, uses 7631-86-9, Silica, uses 26062-79-3, Shallol DC-902P 26780-21-2 60559-07-1 63957-70-0, Boehmite 69877-99-2 **121436-73-5**
RL: NUU (Other use, unclassified); USES (Uses)
(**ink-jet** recording **sheet** containing polyamine compound and cationic polymers in **ink-receiving** layer for improved blur suppression effect)

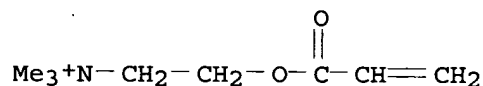
IT **121436-73-5**
RL: NUU (Other use, unclassified); USES (Uses)
(**ink-jet** recording **sheet** containing polyamine compound and cationic polymers in **ink-receiving** layer for improved blur suppression effect)

RN 121436-73-5 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

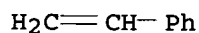
CM 1

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



CM 2

CRN 100-42-5
CMF C8 H8



L44 ANSWER 12 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:427612 HCAPLUS

DOCUMENT NUMBER: 140:431427

TITLE: Ink jet recording **sheet** with excellent image stability

INVENTOR(S): Tsujihata, Shigetomo; Nakano, Ryoichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 27 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

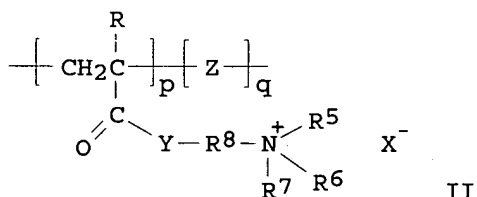
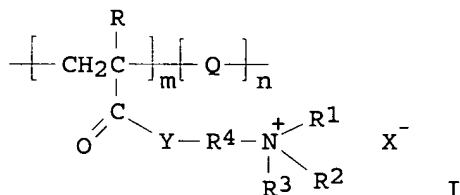
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| EP 1422071 | A1 | 20040526 | EP 2003-26523 | 20031118 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| JP 2004167784 | A2 | 20040617 | JP 2002-335068 | 20021119 |
| US 2004101640 | A1 | 20040527 | US 2003-715600 | 20031119 |
| PRIORITY APPLN. INFO.: GI | | | JP 2002-335068 | A 20021119 |

applicant



AB Ink jet recording **sheets** with excellent image stability comprise a **colorant** receiving **layer** on a substrate, the **colorant** receiving **layer** comprising fine particles, a water soluble resin, and a cationic resin including a unit represented by formula I and II: wherein, R represents a hydrogen atom or a Me group; Y represents a divalent linking group; R¹ represents an optionally substituted aralkyl or aryl group; R² and R³ each independently represents an optionally substituted alkyl, aralkyl or aryl group having 1 to 18 carbon atoms; R⁴ represents an optionally substituted alkylene, aralkylene or arylene group; R⁵, R⁶ and R⁷ each independently represent an optionally substituted alkyl group having 1 to 18 carbon atoms; R⁸ represents an optionally substituted alkylene, aralkylene or arylene group; Q is at least one unit provided from a monomer having an ethylenic double bond, and represents a unit having an inorg./organic ratio (I/O value) of less than 1 in the organic conceptional chart; Z is at least one unit provided from an

aromatic group-containing monomer having an ethylenic double bond, and represents

a unit having less than 0.5 of an I/O value; X- represents an anion; m represents 20 to 100% by mole; and n represents 0 to 80% by mol; p represents 20 to 80% by mole; and q represents 20 to 80% by mole.

IC ICM B41M005-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST ink jet recording **sheet** cationic acrylic resin; trimethylammonioethyl methacrylate chloride styrene copolymer recording **sheet**

IT Polyelectrolytes
(cationic; ink jet recording **sheet** with excellent image stability)

IT Ink-jet recording **sheets**
(ink jet recording **sheet** with excellent image stability)

IT Gelatins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(ink jet recording **sheet** with excellent image stability)

IT 26161-33-1, 2-(Methacryloyloxy)ethyltrimethylammonium chloride homopolymer 28214-37-1 34031-59-9 36347-52-1
, 2-(Methacryloyloxy)ethyltrimethylammonium chloride-methyl methacrylate copolymer 90386-98-4 94528-45-7 692738-45-7
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(ink jet recording **sheet** with excellent image stability)

IT 1318-23-6, Pseudoboehmite 1344-28-1, Alumina, uses 9002-89-5, Polyvinyl alcohol 9004-34-6D, Cellulose, derivative
RL: TEM (Technical or engineered material use); USES (Uses)
(ink jet recording **sheet** with excellent image stability)

IT 7631-86-9, Reolosil QS 30, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(optionally colloidal; ink jet recording **sheet** with excellent image stability)

IT 26161-33-1, 2-(Methacryloyloxy)ethyltrimethylammonium chloride homopolymer 28214-37-1 34031-59-9 36347-52-1
, 2-(Methacryloyloxy)ethyltrimethylammonium chloride-methyl methacrylate copolymer 90386-98-4 94528-45-7 692738-45-7
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(ink jet recording **sheet** with excellent image stability)

RN ~~26161-33-1~~ HCAPLUS

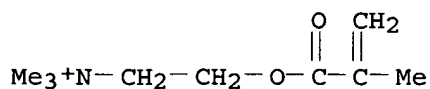
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

1st
hit structure
record



● Cl⁻

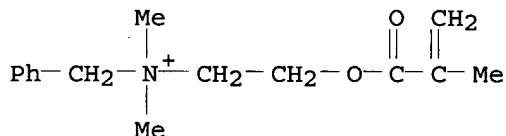
RN ~~28214-37-1~~ HCAPLUS
 CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 46917-07-1

CMF C15 H22 N O2 . Cl

2nd hit structure



● Cl⁻

RN ~~34031-59-9~~ HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

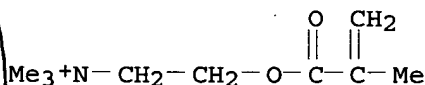
CM 1

component 1 monomer

3rd hit structure

CRN 5039-78-1

CMF C9 H18 N O2 . Cl



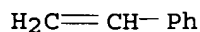
● Cl⁻

CM 2

component 2 = monomer

CRN 100-42-5

CMF C8 H8



RN 36347-52-1 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

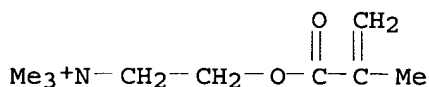
CM 1

Monomer

4th hit structure

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

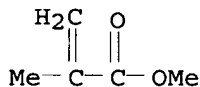


CM 2

Monomer

CRN 80-62-6

CMF C5 H8 O2

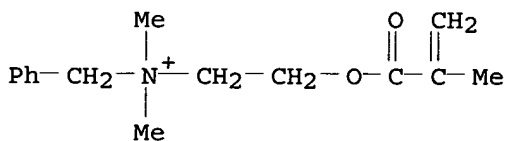


RN 90386-98-4 HCAPLUS
 CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

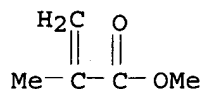
CRN 46917-07-1

CMF C15 H22 N O2 . Cl



CM 2

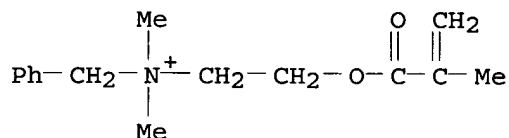
CRN 80-62-6
CMF C5 H8 O2



RN 94528-45-7 HCAPLUS
CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

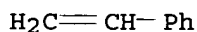
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CMF C15 H22 N O2 . Cl



● Cl⁻

CM 2

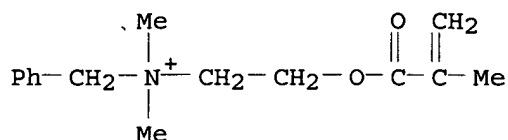
CRN 100-42-5
CMF C8 H8



RN 692738-45-7 HCAPLUS
CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with 2-ethylhexyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

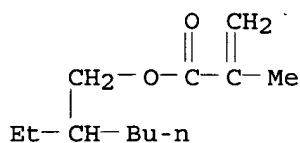
CRN 46917-07-1
CMF C15 H22 N O2 . Cl



● Cl⁻

CM 2

CRN 688-84-6
CMF C12 H22 O2



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L44 ANSWER 13 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:330062 HCAPLUS
DOCUMENT NUMBER: 140:347588
TITLE: Ink-jet printing paper with uppermost layer containing organic polymer fine particles
INVENTOR(S): Kato, Eisaku; Ushiku, Masayuki; Asatake, Atsushi
PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| JP 2004122707 | A2 | 20040422 | JP 2002-293468 | 20021007 |
| PRIORITY APPLN. INFO.: | | | JP 2002-293468 | 20021007 |
| AB The paper has a porous ink receiving layer containing hydrophilic binder and inorg. pigments, in which the uppermost layer contains fine particles of organic polymers (average particle size 10-100 nm) having ≥2 non-aromatic C-C unsatd. bonds in a mol. The paper shows good ink absorption and gives high d. photo-like images with good storage stability and gas resistance. | | | | |
| IC ICM B41M005-00 | | | | |
| ICS B41J002-01 | | | | |
| CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| IT 5153-24-2, Zircosol ZA 9003-17-2, Polybutadiene 9003-18-3, Acrylonitrile-butadiene copolymer 9003-55-8, Butadiene-styrene copolymer 36347-52-1 108188-68-7 | | | | |
| RL: MOA (Modifier or additive use); TEM (Technical or engineered material | | | | |

use); USES (Uses)

(ink-jet printing paper with uppermost layer containing organic polymer fine particles)

IT 36347-52-1 108188-68-7

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(ink-jet printing paper with uppermost layer containing organic polymer fine particles)

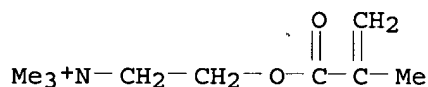
RN 36347-52-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

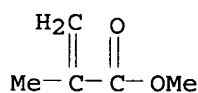


● Cl⁻

CM 2

CRN 80-62-6

CMF C5 H8 O2



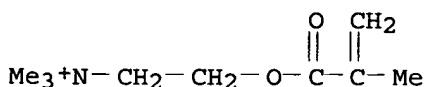
RN 108188-68-7 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

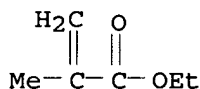
CMF C9 H18 N O2 . Cl



● Cl⁻

CM 2

CRN 97-63-2
CMF C6 H10 O2

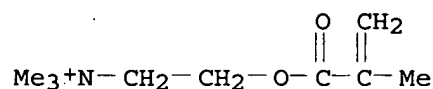


L44 ANSWER 14 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:329118 HCAPLUS
DOCUMENT NUMBER: 140:347580
TITLE: Ink-jet printing paper with ink receiving layer
containing organic polymer with double bond
INVENTOR(S): Kato, Eisaku; Ushiku, Masayuki; Asatake, Atsushi
PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|---|------|--------------------------|-----------------|----------|
| | JP 2004122709 | A2 | 20040422 | JP 2002-293470 | 20021007 |
| PRIORITY APPLN. INFO.: | | | | JP 2002-293470 | 20021007 |
| AB | The paper has a porous ink receiving layer with opacity 1-20% containing inorg. pigment, hydrophilic binder, and a compound with ≥2 non-aromatic C-C double bond in a mol. The paper shows good ink absorption, gives high d. photo-like images with good storage stability and gas resistance. | | | | |
| IC | ICM B41M005-00 | | | | |
| | ICS B41J002-01 | | | | |
| CC | 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| IT | 5153-24-2, Zircosol ZA | | 9003-17-2, Polybutadiene | 9003-55-8, | |
| | Butadiene-styrene copolymer | | 25053-15-0, Daiso Dap S | 36347-52-1 | |
| | 108188-68-7 | | | | |
| | RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) | | | | |
| | (ink-jet printing paper with ink receiving layer containing organic polymer with double bond) | | | | |
| IT | 36347-52-1 108188-68-7 | | | | |
| | RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) | | | | |
| | (ink-jet printing paper with ink receiving layer containing organic polymer with double bond) | | | | |
| RN | 36347-52-1 HCAPLUS | | | | |
| CN | Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME) | | | | |

CM 1

CRN 5039-78-1
CMF C9 H18 N O2 . C1

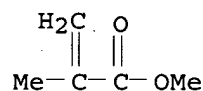


● Cl⁻

CM 2

CRN 80-62-6

CMF C5 H8 O2



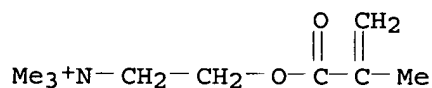
RN 108188-68-7 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

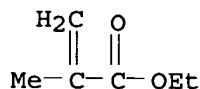


● Cl⁻

CM 2

CRN 97-63-2

CMF C6 H10 O2



L44 ANSWER 15 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:310000 HCAPLUS

DOCUMENT NUMBER: 140:329586

TITLE: Ink-jet printing sheet with micelle-containing

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

INVENTOR(S): inorganic oxide
 Kan, Shi-You; Araki, Fumikazu
 PATENT ASSIGNEE(S): Sanyo Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| JP 2004114679 | A2 | 20040415 | JP 2003-312189 | 20030904 |
| PRIORITY APPLN. INFO.: | | | JP 2002-259296 | A 20020904 |

OTHER SOURCE(S): MARPAT 140:329586

AB The sheet has ≥ 1 layer containing micelle-containing inorg. oxide having ≥ 1 x-ray diffraction peak(s), one of which satisfies $2\theta = 2\sin^{-1}(\lambda/2d)$ [2θ = diffraction angle; λ = wavelength of characteristic x-ray $K\alpha 1$ (nm); d = lattice plane distance; $d = 0.8-150$ nm]. Image printed sheet is also claimed. The sheet is manufactured at $\leq 150^\circ$ and gives images with good water resistance useful for outdoor use.

IC ICM B41M005-00

ICS B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 78-10-4D, Tetraethoxysilane, hydrolyzed 104-74-5, Dodecylpyridinium chloride 112-00-5, Lauryltrimethylammonium chloride 2996-92-1D, Phenyltrimethoxysilane, hydrolyzed 26161-33-1 678970-76-8D, hydrolyzed

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(ink-jet printing sheet containing micelle-containing inorg. oxide)

IT 26161-33-1

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(ink-jet printing sheet containing micelle-containing inorg. oxide)

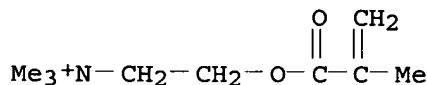
RN 26161-33-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl



● Cl⁻

L44 ANSWER 16 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:218646 HCAPLUS

DOCUMENT NUMBER: 140:255197

TITLE: Pressure-sensitive adhesive sheets with good printability for releasable laminated confidential postcards

INVENTOR(S): Furukawa, Manabu; Tachibana, Hiroyasu; Suzuki, Hideaki

PATENT ASSIGNEE(S): Oji Paper Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

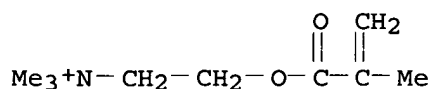
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

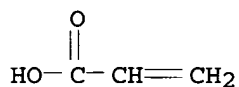
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| JP 2004082466 | A2 | 20040318 | JP 2002-245431 | 20020826 |
| PRIORITY APPLN. INFO.: | | | JP 2002-245431 | 20020826 |
| <p>AB The sheets comprise (A) substrate sheets and (B) pressure-sensitive releasable adhesive layers comprising (b1) adhesives, (b2) inorg. fillers containing 20-50% (based on B) amorphous silica with apparent sp. gr. (JIS K 6220) ≥ 0.25 g/mL, (b3) jet ink fixers, and (b4) binders. The sheets show good processability for offset printing or high-speed jet printing and fast ink drying. Thus, paper was coated with Fultite FB 060JC (Me methacrylate-grafted natural rubber), Sumirez Resin 1001 (acrylamide-diallylamine hydrochloride copolymer), JSR 0696 (styrene-butadiene rubber), PVA R 1130 [silyl-modified poly(vinyl alc.)], and Carplex BS 304N (amorphous silica; apparent sp. gr. 0.31 g/mL) to give an adhesive sheet showing good printability in jet printing or off-set printing. The sheet was folded and press laminated to give a confidential postcard, showing good releasability.</p> | | | | |
| <p>IC ICM B42D015-02</p> | | | | |
| <p>ICS B41J002-01; B41M005-00; C09J007-02; C09J011-00; C09J201-00</p> | | | | |
| <p>CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)</p> | | | | |
| <p>Section cross-reference(s): 74</p> | | | | |
| <p>IT 73565-50-1</p> | | | | |
| <p>RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)</p> | | | | |
| <p>(jet ink fixers; pressure-sensitive adhesive sheets with good printability for releasable laminated confidential postcards)</p> | | | | |
| <p>IT 73565-50-1</p> | | | | |
| <p>RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)</p> | | | | |
| <p>(jet ink fixers; pressure-sensitive adhesive sheets with good printability for releasable laminated confidential postcards)</p> | | | | |
| <p>RN 73565-50-1 HCAPLUS</p> | | | | |
| <p>CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenoic acid (9CI) (CA INDEX NAME)</p> | | | | |
| <p>CM 1</p> | | | | |
| <p>CRN 5039-78-1</p> | | | | |
| <p>CMF C9 H18 N O2 . Cl</p> | | | | |



● Cl⁻

CM 2

CRN 79-10-7
CMF C3 H4 O2



L44 ANSWER 17 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:195535 HCAPLUS

DOCUMENT NUMBER: 140:261424

TITLE: Ink-jet printing sheet containing cationic polymer and phenyl ether with unsaturated group

INVENTOR(S): Takashima, Masanobu; Nishioka, Tomoko

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 49 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

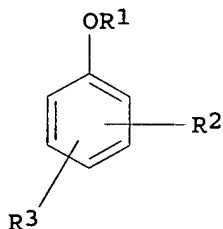
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--------|------------|-----------------|----------|
| JP 2004074537 | A2 | 20040311 | JP 2002-236909 | 20020815 |
| PRIORITY APPLN. INFO.: | | | JP 2002-236909 | 20020815 |
| OTHER SOURCE(S): | MARPAT | 140:261424 | | |

GI



I

AB The sheet has an ink receiving layer containing I [R¹ = alkenyl, alkynyl; R² =

H, aliphatic or aromatic group; OR4, halo; R3 = H, CO2R5, CONR6R7, SO3R8, PO(OR9)2, aliphatic or aromatic group, NR10R11; R4 = aliphatic group; R5, R8, R9 = H, M+, aliphatic or aromatic group; R6-7, R10-11 = H, aliphatic or aromatic group, acyl, alkoxycarbonyl, aryloxycarbonyl, carbamoyl, alkylsulfonyl, arylsulfonyl, sulfamoyl; M+ = 1- to 3-valent metal cation, N+R12R13R14R15; R12-15 = H, aliphatic or aromatic group] and a cationic polymer bearing aromatic group and quaternary ammonium salt structure. The sheet shows good ozone resistance and gives high d. images.

IC ICM B41M005-00
ICS B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 9017-80-5 28214-37-1 60559-07-1 90216-73-2 91910-50-8
130432-57-4 135710-38-2 185254-52-8 664334-19-4 664334-22-9
667916-33-8 667916-34-9
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(ink-jet printing sheet containing cationic polymer and Ph ether with unsatd. group)

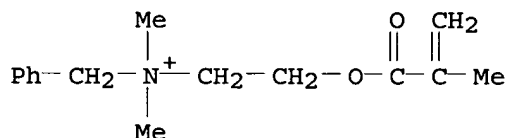
IT 28214-37-1
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(ink-jet printing sheet containing cationic polymer and Ph ether with unsatd. group)

RN 28214-37-1 HCAPLUS

CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 46917-07-1
CMF C15 H22 N O2 . Cl



● Cl⁻

L44 ANSWER 18 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:154328 HCAPLUS
DOCUMENT NUMBER: 140:207498
TITLE: Porosity-controlled ink-jet printing sheet containing cationic polymer
INVENTOR(S): Kobayashi, Takashi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

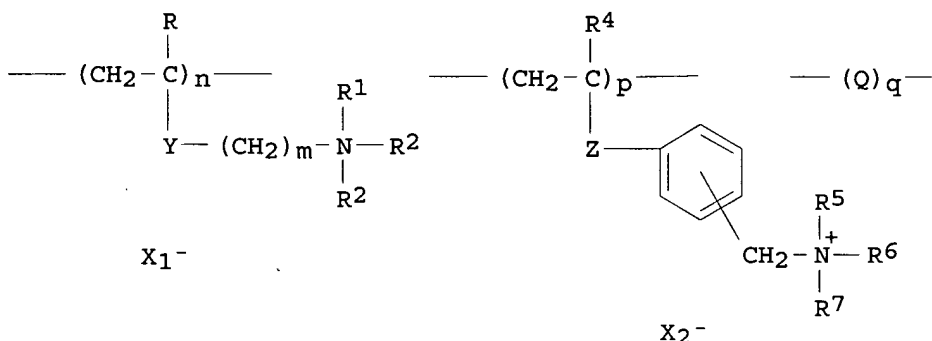
KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2004058317 | A2 | 20040226 | JP 2002-216745 | 20020725 |
| PRIORITY APPLN. INFO.: | | | JP 2002-216745 | 20020725 |

GI



I

AB The sheet, having porosity 60-70% and pore volume ≥ 20 mL/m², comprises a support coated with an ink receiving layer containing water-soluble resin, fine particles with primary particle size ≤ 30 nm, water-soluble cationic polymer I [R, R⁴ = H, C1-4 alkyl; R¹-3, R⁵-7 = (substituted) alkyl; Y, Z = divalent linkage; X₁⁻, X₂⁻ = anion; Q = ≥ 1 repeating unit(s) bearing ethylenic unsatd. group; n, p = 0-100, q = 0-60, n + p + q = 100 mol%; n \neq p \neq 0; m = 1-6] with number average mol. weight $\leq 100,000$, and high b.p. organic solvent with b.p. $\geq 150^\circ$ at ordinary pressure. The sheet gives images with high brightness without bleeding.

IC ICM B41M005-00

ICS B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 7631-86-9, Silica, uses 9002-89-5, PVA 124 92708-44-6

RL: TEM (Technical or engineered material use); USES (Uses)
(porosity-controlled ink-jet printing sheet
containing cationic polymer)

IT 92708-44-6

RL: TEM (Technical or engineered material use); USES (Uses)
(porosity-controlled ink-jet printing sheet
containing cationic polymer)

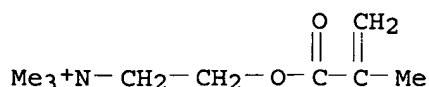
RN 92708-44-6 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,
chloride, polymer with octyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

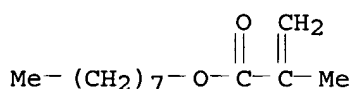
CMF C9 H18 N O2 . Cl



● Cl⁻

CM 2

CRN 2157-01-9
CMF C12 H22 O2



L44 ANSWER 19 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:138916 HCAPLUS

DOCUMENT NUMBER: 140:172232

TITLE: Ink-jet printing **sheet** with high resistance to bleeding and curling in high-humidity atmosphere
INVENTOR(S): Suzuki, Katsuyoshi; Kobayashi, Takashi; Kato, Atsushi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 50 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2004050554 | A2 | 20040219 | JP 2002-209766 | 20020718 |
| PRIORITY APPLN. INFO.: | | | JP 2002-209766 | 20020718 |

AB The **sheet** has a support whose both sides are covered with polyolefin layers. One side of the covered support has a **colorant** receptor **layer** containing water-soluble resins, inorg. particles having average primary particle size ≤30 nm, and water-soluble cationic polymers having units of [CH₂C(R)Y(CH₂)_mN⁺R₁R₂R₃(X₁)-]_n, [CH₂C(R₄)ZC₆H₄CH₂N⁺R₅R₆R₇(X₂)-]_p, and [Q]_q [R, R₄ = H, C₁-4 alkyl; R₁-R₃, R₅-R₇ = (un)substituted alkyl; Y, Z = divalent linking group; (X₁)-, (X₂)- = anion; Q = ethylenically unsatd. group-containing monomer-derived repeating unit; n, p = 0-100 mol%; q = 0-60 mol%; n + p + q = 100%; n and p are not 0 at the same time; m = 1-6] and number-average mol. weight ≤100,000. The other side of the covered support is coated with a solution containing (A) an aqueous

dispersion prepared by emulsion-polymerization of ≥2 monomers in the presence of reactive emulsifiers in aqueous media and (B) carboxy- and/or sulfo-containing water-soluble polymers and/or their metal salts and/or hydrophilic organic polymer aqueous dispersions. The **sheet** shows stable running performance in a printer without jamming.

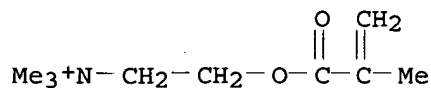
IC ICM B41M005-00
ICS B41J002-01

- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 43
- ST polyolefin coating support ink jet printing **sheet**; cationic polymer receptor ink jet printing **sheet**; water sol polymer back coating jet printing **sheet**; hydrophilic org polymer back coating jet printing **sheet**
- IT Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, graft, back-coating layer containing; ink-jet printing **sheet** with high resistance to bleeding and curling in high-humidity atmospheric)
- IT Polyelectrolytes
(cationic, **colorant** receptor **layer** containing; ink-jet printing **sheet** with high resistance to bleeding and curling in high-humidity atmospheric)
- IT Ink-jet recording **sheets**
(ink-jet printing **sheet** with high resistance to bleeding and curling in high-humidity atmospheric)
- IT Paper
(**sheet** support core; ink-jet printing **sheet** with high resistance to bleeding and curling in high-humidity atmospheric)
- IT Polyolefins
RL: TEM (Technical or engineered material use); USES (Uses)
(support paper coated with; ink-jet printing **sheet** with high resistance to bleeding and curling in high-humidity atmospheric)
- IT 105729-79-1DP, Isoprene-styrene block copolymer, sulfonated, sodium salt
656826-19-6P 656826-20-9P 656826-21-0P 656826-22-1P 656826-23-2P
656834-68-3P 656834-70-7P 656834-72-9P 656834-74-1P 656834-76-3P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(back-coating layer containing; ink-jet printing **sheet** with high resistance to bleeding and curling in high-humidity atmospheric)
- IT 9080-79-9, Chemistat SA 9
RL: TEM (Technical or engineered material use); USES (Uses)
(back-coating layer containing; ink-jet printing **sheet** with high resistance to bleeding and curling in high-humidity atmospheric)
- IT 7631-86-9, QS 30, uses 9002-89-5, PVA 124 **92708-44-6**
RL: TEM (Technical or engineered material use); USES (Uses)
(**colorant** receptor **layer** containing; ink-jet printing **sheet** with high resistance to bleeding and curling in high-humidity atmospheric)
- IT 9002-88-4, Polyethylene
RL: TEM (Technical or engineered material use); USES (Uses)
(high-d., low-d., support paper coated with; ink-jet printing **sheet** with high resistance to bleeding and curling in high-humidity atmospheric)
- IT **92708-44-6**
RL: TEM (Technical or engineered material use); USES (Uses)
(**colorant** receptor **layer** containing; ink-jet printing **sheet** with high resistance to bleeding and curling in high-humidity atmospheric)
- RN 92708-44-6 HCAPLUS
- CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxyl]-, chloride, polymer with octyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

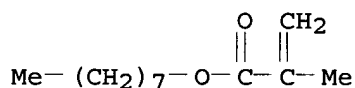


● Cl⁻

CM 2

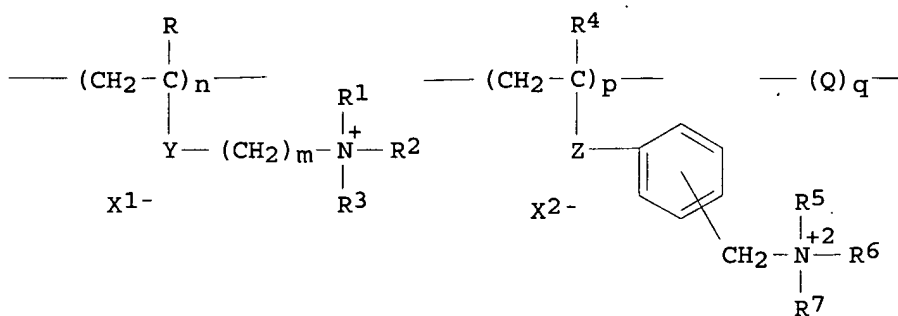
CRN 2157-01-9

CMF C12 H22 O2



L44 ANSWER 20 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:136640 HCAPLUS
 DOCUMENT NUMBER: 140:190013
 TITLE: Ink-jet printing sheet containing fluorescent
 brightener
 INVENTOR(S): Endo, Toshiaki
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 39 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------------|------|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| JP 2004050501 | A2 | 20040219 | JP 2002-208500 | 20020717 |
| PRIORITY APPLN. INFO.: GI | | | JP 2002-208500 | 20020717 |



I

AB The sheet comprises a support coated with an ink receiving layer containing a water-soluble resin, fine particles with average primary particle size ≤ 30 nm, a water-soluble cationic polymer I [R, R₄ = H, C₁₋₄ alkyl; R₁₋₃, R₅₋₇ = (substituted) alkyl; Y, Z = divalent linkage; X₁⁻, X₂⁻ = anion; Q = repeating unit from ethylenic unsatd. group(s); n = 0-100; p = 0-100; q = 0-60; n + p + q = 100 mol.%; n ≠ p ≠ 0] with average mol. wt $\leq 100,000$, and ≥ 1 water-soluble fluorescent brightener. Images with good background whiteness and lightfastness are obtained.

IC ICM B41M005-00

ICS B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

IT 91-44-1, Whitex WS 12224-02-1, Whitex BB 92708-44-6

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(ink-jet printing sheet containing
fluorescent brightener)

IT 92708-44-6

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

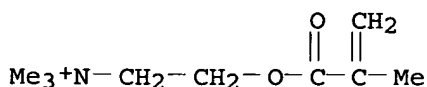
(ink-jet printing sheet containing
fluorescent brightener)

RN 92708-44-6 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with octyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

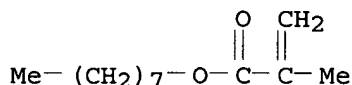
CRN 5039-78-1

CMF C9 H18 N O2 . Cl

- Cl^-

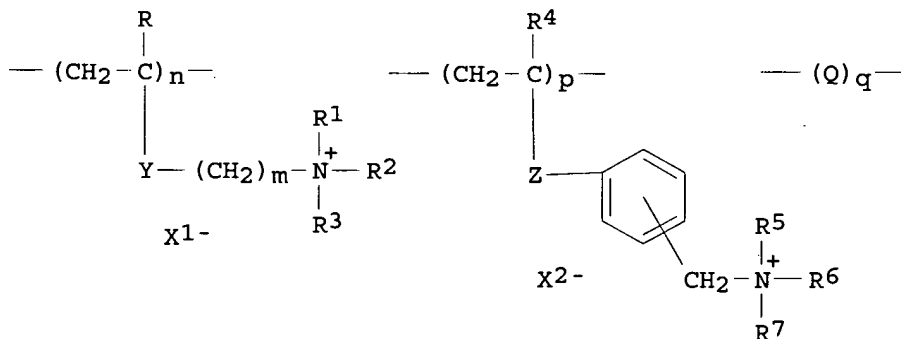
CM 2

CRN 2157-01-9
CMF C12 H22 O2



L44 ANSWER 21 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:117555 HCAPLUS
 DOCUMENT NUMBER: 140:172216
 TITLE: Ink-jet printing sheet containing surfactants
 INVENTOR(S): Suzuki, Katsuyoshi; Kobayashi, Takashi
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 37 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------------|------|----------|-----------------|----------|
| JP 2004042353 | A2 | 20040212 | JP 2002-201177 | 20020710 |
| PRIORITY APPLN. INFO.: GI | | | JP 2002-201177 | 20020710 |



I

AB The sheet comprises a support coated with an ink receiving layer containing a water-soluble resin, inorg. particles with average primary particle size $\leq 30 \mu\text{m}$, cationic polymer I with number average mol. weight $\leq 100,000$ [R, R⁴ = H, C1-4 alkyl, R¹-3, R⁵-7 = (substituted)alkyl; Y, Z = divalent linkage; X¹-, X²- = anion; Q = repeating unit from ≥ 1 monomer with ethylenic unsatd. group; n = 0-100; p = 0-100; q = 0-60; n + p + q = 100 mol%; n \neq p \neq 0; m = 1-6], and ≥ 1 surfactant from telomeric fluorosurfactant and silicone surfactant. The sheet shows good conveyance on printing, gives clear images without blotting even on high

moisture conditions.

IC ICM B41M005-00
ICS B41J002-01; C08J007-04; C08L101-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 9002-92-0, Emulgen 109P 92708-44-6 302778-51-4, Megafac F 1405
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(ink-jet printing sheet containing surfactants)

IT 92708-44-6
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(ink-jet printing sheet containing surfactants)

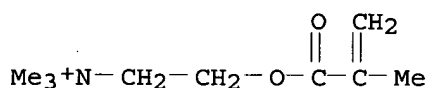
RN 92708-44-6 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with octyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME).

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

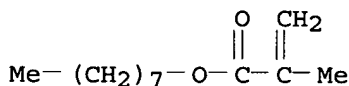


● Cl⁻

CM 2

CRN 2157-01-9

CMF C12 H22 O2



L44 ANSWER 22 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:95613 HCAPLUS

DOCUMENT NUMBER: 140:154491

TITLE: Cationic polymer additive to ink jet printing paper for improving light- and water-resistance

INVENTOR(S): Waseda, Shigeyuki; Suzuki, Shozo

PATENT ASSIGNEE(S): Senka Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF

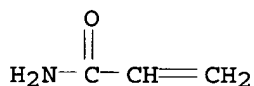
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|------|----------|-----------------|----------|
| | JP 2004034685 | A2 | 20040205 | JP 2002-232120 | 20020705 |
| PRIORITY APPLN. INFO.: | | | | JP 2002-232120 | 20020705 |
| AB | The title cationic polymer is prepared by copolymerizing dialkyl aminoalkyl (meth)acrylate Me chloride, di-Me sulfate or di-Et sulfate quaternary salt and (meth)acrylamide derivative so that the polymer can have a CV value of 2.7-4.5 meq/g. | | | | |
| IC | ICM B41M005-00 | | | | |
| | ICS B41J002-01 | | | | |
| CC | 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| | Section cross-reference(s): 42 | | | | |
| IT | 26006-22-4P 35429-19-7P 69418-26-4P | | | | |
| | RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses) | | | | |
| | (cationic polymer coating material for ink jet printing paper to improve light- and water-resistance) | | | | |
| IT | 26006-22-4P 35429-19-7P 69418-26-4P | | | | |
| | RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses) | | | | |
| | (cationic polymer coating material for ink jet printing paper to improve light- and water-resistance) | | | | |
| RN | 26006-22-4 HCAPLUS | | | | |
| CN | Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, methyl sulfate, polymer with 2-propenamide (9CI) (CA INDEX NAME) | | | | |
| CM | 1 | | | | |
| CRN | 79-06-1 | | | | |
| CMF | C3 H5 N O | | | | |



CM 2

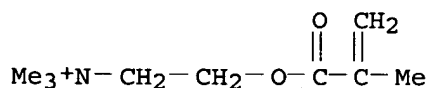
CRN 6891-44-7

CMF C9 H18 N O2 . C H3 O4 S

CM 3

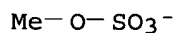
CRN 33611-56-2

CMF C9 H18 N O2



CM 4

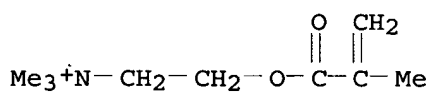
CRN 21228-90-0
CMF C H3 O4 S



RN 35429-19-7 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

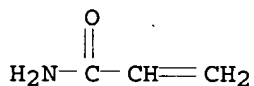
CM 1

CRN 5039-78-1
CMF C9 H18 N O2 . Cl



CM 2

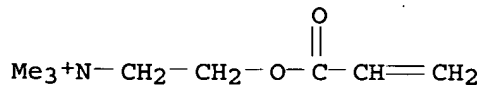
CRN 79-06-1
CMF C3 H5 N O



RN 69418-26-4 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

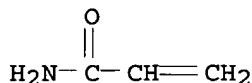
CM 1

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



CM 2

CRN 79-06-1
CMF C3 H5 N O



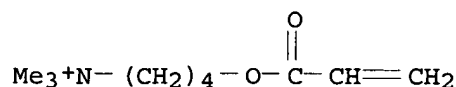
L44 ANSWER 23 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:36871 HCAPLUS
DOCUMENT NUMBER: 140:102057
TITLE: Ink jet recording paper with its controlled surface
INVENTOR(S): Taka, Yukako; Nojima, Takahiko
PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| JP 2004009361 | A2 | 20040115 | JP 2002-162757 | 20020604 |
| PRIORITY APPLN. INFO.: | | | JP 2002-162757 | 20020604 |
| AB The paper has ≥ 1 porous ink receiving layer with 60° surface specular gloss $\geq 30\%$ (by JIS Z 8741) and C value 65-85% (image clearness based on JIS K 7105) on ≥ 1 side of a support, comprising a hydrophilic binder, a cationic compound, and inorg. particles with primary particle average diameter ≤ 50 nm. It shows high d. and improved gloss and anti-bleeding. | | | | |
| IC ICM B41M005-00 ICS B41J002-01 | | | | |
| CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| IT 7631-86-9, QS 30, uses 273934-89-7, Borax-boric acid-Poval PVA 235 copolymer 612069-70-2 642463-64-7 | | | | |
| RL: TEM (Technical or engineered material use); USES (Uses) (ink jet recording paper with controlled surface gloss) | | | | |
| IT 642463-64-7 | | | | |
| RL: TEM (Technical or engineered material use); USES (Uses) (ink jet recording paper with controlled surface gloss) | | | | |
| RN 642463-64-7 HCAPLUS | | | | |
| CN 1-Butanaminium, N,N,N-trimethyl-4-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME) | | | | |

CM 1

CRN 90284-14-3
CMF C10 H20 N O2 . Cl

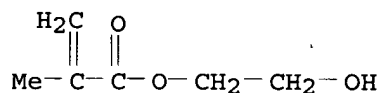


● Cl⁻

CM 2

CRN 868-77-9

CMF C6 H10 O3



L44 ANSWER 24 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:17692 HCAPLUS

DOCUMENT NUMBER: 140:67654

TITLE: Ink-jet printing sheet containing polyvalent metal compounds

INVENTOR(S): Nojima, Takahiko; Ko, Yukako

PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

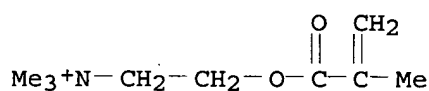
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

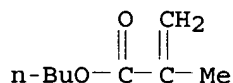
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| JP 2004001240 | A2 | 20040108 | JP 2002-120849 | 20020423 |
| PRIORITY APPLN. INFO.: | | | JP 2002-103572 | A 20020405 |
| AB The sheet comprises a water non-absorbing support coated with a porous ink receiving layer containing inorg. particles, a binder and ≥2 kinds of polyvalent metal compound having different water extractability. In the sheet, the ink receiving layer contains inorg. particles, a binder, a compound containing Al atom in a mol. (except Al oxide) and a compound containing Zr atom in a mol. (except Zr oxide). The sheet gives water-resistant images without bronzing and blotting on storage. | | | | |
| IC ICM B41M005-00 | | | | |
| ICS B41J002-01; B41J003-04 | | | | |
| CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| IT 1327-41-9, PAC 250A 7585-20-8, Zirconium acetate 9017-80-5 | | | | |
| 13746-89-9, Zirconium nitrate 41302-98-1 90216-76-5 | | | | |
| 252904-53-3 | | | | |
| RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) | | | | |
| (ink-jet printing sheet containing polyvalent | | | | |

metal compds.)
 IT 41302-98-1
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (ink-jet printing sheet containing polyvalent metal compds.)
 RN 41302-98-1 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with butyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)
 CM 1
 CRN 5039-78-1
 CMF C9 H18 N O2 . Cl



● Cl⁻

CM 2
 CRN 97-88-1
 CMF C8 H14 O2



L44 ANSWER 25 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2003:905995 HCAPLUS
 DOCUMENT NUMBER: 139:388518
 TITLE: Ink-jet recording paper containing acetylene glycol/ alcohol compounds and polyvalent metal compounds with excellent bleeding and bronzing resistance
 INVENTOR(S): Nojima, Takahiko; Ushiku, Masayuki; Ko, Yukako
 PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| JP 2003326832 | A2 | 20031119 | JP 2002-135358 | 20020510 |
| PRIORITY APPLN. INFO.: | | | JP 2002-135358 | 20020510 |
| AB The paper consists of a water non-absorbing support and an ink-receiving porous layer containing inorg. microparticles, a binder, a polyvalent metal | | | | |

compound, an acetylene glycol/alc. compound, and a quaternary ammonium salt-containing cationic polymer (optional).

IC ICM B41M005-00
ICS B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

IT 1327-41-9, PAC 250A 7631-86-9, Reolosil QS 20, uses 18428-88-1, Zircosol ZC 2 136939-01-0, PASS 177646-18-3, Poval PVA 235 221666-03-1 624736-10-3
RL: TEM (Technical or engineered material use); USES (Uses)
(ink-receiving layer; ink-jet recording paper containing acetylene glycols/alcs. and polyvalent metal compds. with good bleeding and bronzing resistance)

IT 221666-03-1
RL: TEM (Technical or engineered material use); USES (Uses)
(ink-receiving layer; ink-jet recording paper containing acetylene glycols/alcs. and polyvalent metal compds. with good bleeding and bronzing resistance)

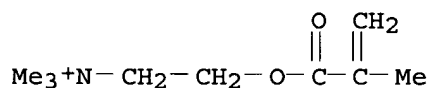
RN 221666-03-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with hexyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

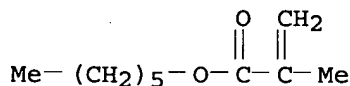


● Cl⁻

CM 2

CRN 142-09-6

CMF C10 H18 O2



L44 ANSWER 26 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:902296 HCAPLUS

DOCUMENT NUMBER: 139:388511

TITLE: Ink-jet recording paper with excellent discoloration prevention

INVENTOR(S): Kasahara, Kenzo

PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

DOCUMENT TYPE: CODEN: JKXXAF
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: Japanese
 PATENT INFORMATION: 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2003326839 | A2 | 20031119 | JP 2002-136807 | 20020513 |
| PRIORITY APPLN. INFO.: | | | JP 2002-136807 | 20020513 |

AB The paper consists of a support, ≥ 1 porous layers, and a surface layer containing water-insol. organic microparticles [A; SP value 18.414-30.69 (MPa)^{1/2}, glass-transition temperature, T_g , $\geq 70^\circ$, average particle size, PS, ≤ 100 nm] soluble or swellable in water-soluble organic solvents with b.p. $\geq 120^\circ$ or organic microparticles (B; T_g $\geq 70^\circ$, PS ≤ 100 nm) containing polymers having $\geq 5\%$ repeating units $\text{CH}_2\text{CR}_1\text{C}(\text{OXJY})$ [X = O, NR₂; R₁ = H, Me; R₂ = H, C₁-8 alkyl; J = C₂-8 (ether- or thioether-)alkylene if X = O; Y = OH, alkoxy, carbamoyl; J = single bond or C₂-8 (ether- or thioether-)alkylene if X = NR₂; Y = H, OH, amino, alkoxy, carbamoyl], wherein ≥ 1 layers (outermost layer, preferably) contain a water-soluble polymer with weight-average mol. weight 1000-10,000. The interaction of the organic microparticles with inorg. microparticles under storage at high temps. is prevented by the polymers.

IC ICM B41M005-00

ICS B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 9003-05-8, Acrylamide homopolymer 26022-14-0, 2-Hydroxyethyl acrylate homopolymer 26062-79-3, Diallyldimethyl ammonium chloride homopolymer 26590-05-6 31361-95-2 71550-12-4 625094-99-7 625095-00-3 625095-02-5

RL: TEM (Technical or engineered material use); USES (Uses)

(water-soluble polymer, surface layer; ink-jet

recording paper containing water-soluble polymers for discoloration prevention)

IT 31361-95-2

RL: TEM (Technical or engineered material use); USES (Uses)

(water-soluble polymer, surface layer; ink-jet

recording paper containing water-soluble polymers for discoloration prevention)

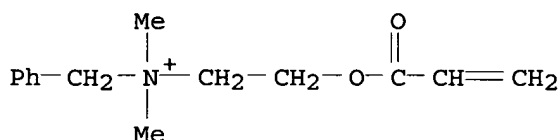
RN 31361-95-2 HCAPLUS

CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(1-oxo-2-propenyl)oxy]ethyl]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 46830-22-2

CMF C14 H20 N O2 . C1

● Cl⁻

L44 ANSWER 27 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:884453 HCAPLUS

DOCUMENT NUMBER: 139:371931

TITLE: Ink-jet printing sheet containing cationic polymer and inorganic particles

INVENTOR(S): Yoshimura, Kosaku; Nakano, Ryoichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

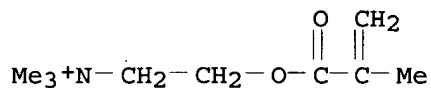
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|-----------------|-----------------|----------|
| JP 2003320747 | A2 | <u>20031111</u> | JP 2002-130630 | 20020502 |
| PRIORITY APPLN. INFO.: | | | JP 2002-130630 | 20020502 |
| AB The sheet has an ink receiving layer containing inorg. fine particles and a cationic polymer with terminal OH group. High d. and glossy images are obtained. | | | | |
| IC ICM B41M005-00 | | | | |
| ICS B41J002-01; C08F012-28; C08F020-34; C08F020-60; C08F026-02; C08F034-00; C09D011-00; C08F002-38 | | | | |
| CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| Section cross-reference(s): 38 | | | | |
| IT 60-24-2DP, 2-Mercaptoethanol, reaction products with acrylic polymer with ammonium group 19721-22-3DP, 3-Mercaptopropanol, reaction products with acrylic polymer with ammonium group 26161-33-1DP, reaction products with alc. 28214-37-1DP, reaction products with mercaptoethanol 116076-06-3DP, reaction products with mercaptoethanol 142517-79-1P, Boric acid-vinyl alcohol copolymer 498572-53-5DP, reaction products with mercaptoethanol | | | | |
| RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) | | | | |
| (ink-jet printing sheet containing cationic polymer and inorg. particles) | | | | |
| IT 26161-33-1DP, reaction products with alc. 28214-37-1DP, reaction products with mercaptoethanol 116076-06-3DP, reaction products with mercaptoethanol | | | | |
| RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) | | | | |
| (ink-jet printing sheet containing cationic polymer and inorg. particles) | | | | |
| RN 26161-33-1 HCAPLUS | | | | |
| CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, | | | | |

chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl



● Cl⁻

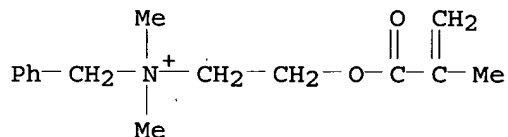
RN 28214-37-1 HCAPLUS

CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 46917-07-1

CMF C15 H22 N O2 . Cl



● Cl⁻

RN 116076-06-3 HCAPLUS

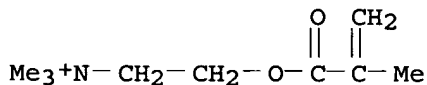
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with methyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

✕

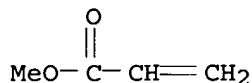


● Cl⁻

CM 2

CRN 96-33-3
CMF C4 H6 O2

*



L44 ANSWER 28 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:867999 HCAPLUS

DOCUMENT NUMBER: 139:371905

TITLE: Ink-jet printing paper having excellent blurring and
bronzing resistance under high humidity

INVENTOR(S): Ko, Yukako; Nojima, Takahiko

PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

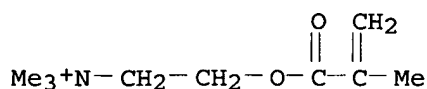
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|-----------------|-----------------|----------|
| JP 2003312133 | A2 | <u>20031106</u> | JP 2002-122172 | 20020424 |
| PRIORITY APPLN. INFO.: | | | JP 2002-122172 | 20020424 |
| AB The paper have ink-receiving layers which contain inorg. microparticles, binders, cationic polymers, crosslinking agents of the binders, and multivalent metal compds. excluding Al ₂ O ₃ and ZrO ₂ and satisfy transfer amount of 15:15:70 diethylene glycol/triethyl monobutyl ether/water (test method prescribed) ≥20 mL/m ² . | | | | |
| IC ICM B41M005-00 | | | | |
| ICS B41J002-01 | | | | |
| CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| Section cross-reference(s): 42 | | | | |
| IT 26470-16-6, PAS H 5L 177646-18-3, Poval PVA 235 221666-03-1 | | | | |
| 612069-70-2 | | | | |
| RL: TEM (Technical or engineered material use); USES (Uses) | | | | |
| (ink-receiving layers; ink-jet printing | | | | |
| paper having excellent blurring and bronzing resistance under | | | | |
| high humidity) | | | | |
| IT 221666-03-1 | | | | |
| RL: TEM (Technical or engineered material use); USES (Uses) | | | | |
| (ink-receiving layers; ink-jet printing | | | | |
| paper having excellent blurring and bronzing resistance under | | | | |
| high humidity) | | | | |
| RN 221666-03-1 HCAPLUS | | | | |
| CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with hexyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME) | | | | |

CM 1

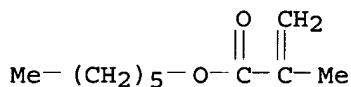
CRN 5039-78-1
CMF C9 H18 N O2 . Cl



● Cl⁻

CM 2

CRN 142-09-6
CMF C10 H18 O2



L44 ANSWER 29 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:867998 HCAPLUS

DOCUMENT NUMBER: 139:371904

TITLE: Ink-jet recording sheet with good crack resistance and ink absorption

INVENTOR(S): Wakata, Yuichi; Nakano, Ryoichi; Yamamoto, Mizuki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| JP 2003312128 | A2 | 20031106 | JP 2002-120471 | 20020423 |
| PRIORITY APPLN. INFO.: | | | JP 2002-120471 | 20020423 |
| AB The sheet has an ink-receiving layer containing (A) polyallylamine, poly(vinyl amine), and/or their derivs. and (B) polymers containing units CH2C(R1)COZY2N+R2R3R4X- and/or CH2C(R5)C6H4N+R2R3R4X- [R1 = H, C1-4 alkyl; R2-4 = H, (un)substituted C1-18 alkyl, aryl, or aralkyl which may form (un)saturated ring structure; R5 = H, Me; Z = O, NH; Y2 = C1-8 divalent group which may be linked through a hetero atom; X- = anion]. The sheet provides images with high resolution and improved feathering resistance, light stability, and ozone resistance. | | | | |
| IC ICM B41M005-00 | | | | |
| ICS B41J002-01 | | | | |
| CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| Section cross-reference(s): 38 | | | | |
| IT 107-13-1DP, Acrylonitrile, reaction products with polyallylamine | | | | |
| 9017-80-5P 30551-89-4DP, PAA 10C, reaction products with acrylonitrile | | | | |
| 67907-01-1P 70443-33-3P 77986-09-5P 90216-73-2P 301646-69-5P | | | | |
| RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) | | | | |

(ink-receiving layer containing; ink-jet recording sheet with good crack resistance and ink absorption)

IT 301646-69-5P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(ink-receiving layer containing; ink-jet recording sheet with good crack resistance and ink absorption)

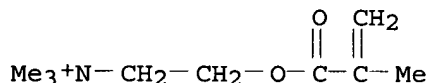
RN 301646-69-5 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-ethylhexyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

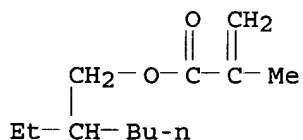


● Cl⁻

CM 2

CRN 688-84-6

CMF C12 H22 O2



L44 ANSWER 30 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:841043 HCAPLUS

DOCUMENT NUMBER: 139:343496

TITLE: Ink-jet printing sheet containing polymer with boric acid or boronic acid group

INVENTOR(S): Tsujibata, Shigetomo

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
|------------|------|------|-----------------|------|

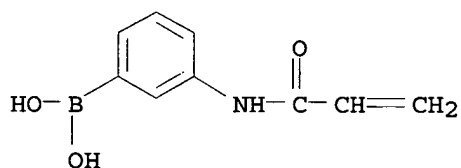
KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

 JP 2003305946 A2 20031028 JP 2002-108997 20020411
 PRIORITY APPLN. INFO.: JP 2002-108997 20020411
 AB The sheet contains a copolymer having boric acid (A), boronic acid (B), or boron-containing groups forming A or B in the presence of water. The sheet shows good anti-cracking property, ink absorption, lightfastness, water and gas resistance, and gives high d. images with good storage stability.
 IC ICM B41M005-00
 ICS B41J002-01
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38
 IT 7631-86-9P, QS 30, preparation 9002-89-5P, PVA 124 136043-34-0P
 616229-14-2P 616229-15-3P 616231-89-1P 616231-91-5P
 616231-94-8P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (ink-jet printing sheet containing polymer with boric acid or boronic acid group)
 IT 616229-14-2P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (ink-jet printing sheet containing polymer with boric acid or boronic acid group)
 RN 616229-14-2 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with [3-[(1-oxo-2-propenyl)amino]phenyl]boronic acid (9CI) (CA INDEX NAME)

CM 1

CRN 99349-68-5

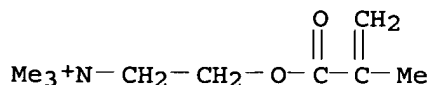
CMF C9 H10 B N O3



CM 2

CRN 5039-78-1

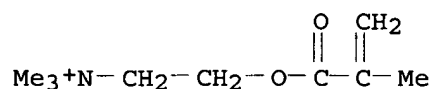
CMF C9 H18 N O2 . Cl



● Cl⁻

L44 ANSWER 31 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2003:841041 HCAPLUS
 DOCUMENT NUMBER: 139:330385
 TITLE: Ink-jet recording sheet suitable for long term storage
 INVENTOR(S): Tsujibata, Shigetomo
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|----------|
| JP 2003305944 | A2 | 20031028 | JP 2002-108995 | 20020411 |
| PRIORITY APPLN. INFO.: | | | JP 2002-108995 | 20020411 |
| AB | Title recording sheet comprises a substrate and an ink-recepting layer, where the ink-recepting layer comprises at least inorg. particles, a particle surface-treating agent with mol. weight of <1000, and a polymer which has functional groups reactive to the inorg. particles and has a weight-average mol. weight 1000-500000. | | | |
| IC | ICM B41M005-00 ICS B41J002-01 | | | |
| CC | 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | |
| IT | 4420-74-ODP, 3-Mercaptopropyltrimethoxysilane, reaction products with acrylic polymers 26022-14-ODP, reaction products with 3-mercaptopropyltrimethoxysilane 26161-33-1DP, reaction products with 3-mercaptopropyltrimethoxysilane 31343-93-8P 36347-52-1DP, reaction products with 3-mercaptopropyltrimethoxysilane 130805-55-9P 615253-63-9P RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (ink-jet recording sheet suitable for long term storage) | | | |
| IT | 26161-33-1DP, reaction products with 3-mercaptopropyltrimethoxysilane 36347-52-1DP, reaction products with 3-mercaptopropyltrimethoxysilane 130805-55-9P RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (ink-jet recording sheet suitable for long term storage) | | | |
| RN | 26161-33-1 HCAPLUS | | | |
| CN | Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, homopolymer (9CI) (CA INDEX NAME) | | | |
| CM | 1 | | | |
| CRN | 5039-78-1 | | | |
| CMF | C9 H18 N O2 . Cl | | | |



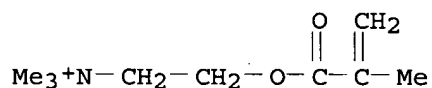
● Cl⁻

RN 36347-52-1 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,
 chloride, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

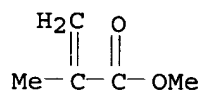


● Cl⁻

CM 2

CRN 80-62-6

CMF C5 H8 O2

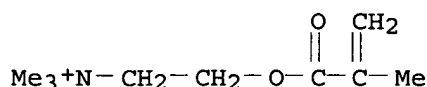


RN 130805-55-9 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,
 chloride, polymer with 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate
 (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

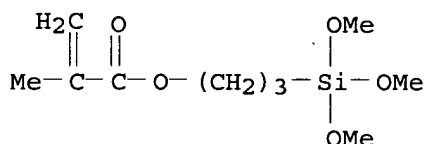


● Cl⁻

CM 2

CRN 2530-85-0

CMF C10 H20 O5 Si



L44 ANSWER 32 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:815268 HCAPLUS

DOCUMENT NUMBER: 139:314530

TITLE: Inkjet recording method

INVENTOR(S): Takashima, Masanobu; Yabuki, Yoshiharu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 100 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|-------------|
| EP 1352754 | A2 | 20031015 | EP 2003-7956 | 20030409 |
| EP 1352754 | A3 | 20040602 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| JP 2003300380 | A2 | 20031021 | JP 2002-107031 | 20020409 |
| JP 2003305954 | A2 | 20031028 | JP 2002-109112 | 20020411 |
| JP 2004001385 | A2 | 20040108 | JP 2003-18394 | 20030128 |
| JP 2004001469 | A2 | 20040108 | JP 2003-105162 | 20030409 |
| EP 1525995 | A1 | 20050427 | EP 2005-1926 | 20030409 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| PRIORITY APPLN. INFO.: | | | JP 2002-107030 | A 20020409 |
| | | | JP 2002-107031 | A 20020409 |
| | | | JP 2002-109112 | A 20020411 |
| | | | JP 2002-114690 | A 20020417 |
| | | | JP 2003-18394 | A 20030128 |
| | | | EP 2003-7956 | A3 20030409 |

AB The present invention relates to an ink jet recording method of forming an image on an ink jet recording sheet that has, on a support, a

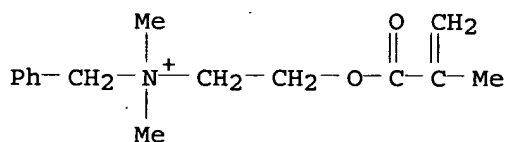
colorant-receiving layer which contains at least one inorg. mordant, by using an ink jet recording ink set that comprises, as min. constituent elements thereof, a yellow ink which contains at least one yellow dye, a magenta ink which contains at least one magenta dye and a cyan ink which contains at least one cyan dye, wherein an oxidation potential of the magenta dye and an oxidation potential of the cyan dye are each nobler than 0.8 V (vs SCE).

- IC ICM B41M005-00
ICS C09D011-00
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
- IT Ink-jet printing
Ink-jet recording **sheets**
(ink jet recording method)
- IT Dyes
(ink jet recording **sheet** containing)
- IT 5153-24-2, Zirconyl acetate
RL: TEM (Technical or engineered material use); USES (Uses)
(Zircosol ZA 30; ink jet recording **sheet colorant** receiving **layer** containing)
- IT 9017-80-5 26062-79-3, Shallol DC 902P **28214-37-1** 32698-04-7,
PAS-A 1 **34031-59-9** 60559-07-1 90216-73-2
RL: TEM (Technical or engineered material use); USES (Uses)
(cationic polymer; **ink jet recording sheet colorant** receiving **layer** containing)
- IT 7631-86-9, Reolosil QS 30, uses 9002-89-5, PVA 124 32168-43-7, Adeka
Catioace PD 50 177646-18-3, PVA 235
RL: TEM (Technical or engineered material use); USES (Uses)
(ink jet recording **sheet colorant** receiving **layer** containing)
- IT 10099-59-9, Lanthanum nitrate 12042-91-0, Aluminum chloride hydroxide
(Al₂Cl(OH)₅) 14814-02-9, Titanium lactate 18428-88-1, Zircosol ZC 2
26161-33-1, Shallol DM 283P
RL: TEM (Technical or engineered material use); USES (Uses)
(inorg. particle; **ink jet recording sheet colorant** receiving **layer** containing)
- IT **28214-37-1 34031-59-9**
RL: TEM (Technical or engineered material use); USES (Uses)
(cationic polymer; **ink jet recording sheet colorant** receiving **layer** containing)
- RN 28214-37-1 HCAPLUS
- CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 46917-07-1

CMF C15 H22 N O2 . Cl



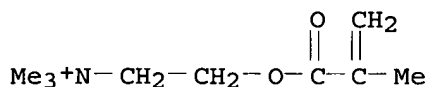
● Cl⁻

RN 34031-59-9 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

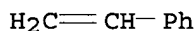


● Cl⁻

CM 2

CRN 100-42-5

CMF C8 H8



IT 26161-33-1, Shallol DM 283P
 RL: TEM (Technical or engineered material use); USES (Uses)
 (inorg. particle; **ink jet recording sheet**
colorant receiving layer containing)

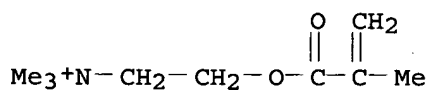
RN 26161-33-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl



● Cl⁻

L44 ANSWER 33 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:617054 HCAPLUS

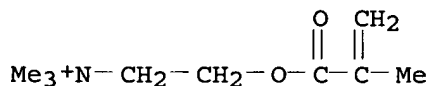
DOCUMENT NUMBER: 139:171292

TITLE: Thermal recording material suited for ink-jet printing

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

INVENTOR(S): sheet
Imai, Daisuke; Sumikawa, Naomi; Natsui, Junpei; Date, Takashi; Omori, Takashi
PATENT ASSIGNEE(S): Nippon Paper Industries Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| JP 2003226076 | A2 | 20030812 | JP 2002-25011 | 20020201 |
| PRIORITY APPLN. INFO.: | | | JP 2002-25011 | 20020201 |
| AB The material has a heat-sensitive layer containing a basic leuco dye and a developer with solubility (in acetonitrile) ≤ 0.2 g/mL, and is characterized by water absorption coefficient $K_a \geq 0.30$ mL/m ² ·ms ^{1/2} measured by the testing method J. TAPPI No.51-87. The material is suited for ink-jet printing receptor giving images without background fog. | | | | |
| IC ICM B41M005-26 ICS B41J002-01; B41M005-00; B41M005-30 | | | | |
| CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) Section cross-reference(s): 38 | | | | |
| IT 25988-97-0, Dimethylamine-epichlorohydrin copolymer 26062-79-3, Polydiallyldimethylammonium chloride 27103-90-8 285569-16-6 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (thermal printing material suited for ink-jet printing sheet) | | | | |
| IT 27103-90-8 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (thermal printing material suited for ink-jet printing sheet) | | | | |
| RN 27103-90-8 HCAPLUS | | | | |
| CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, methyl sulfate, homopolymer (9CI) (CA INDEX NAME) | | | | |
| CM 1 | | | | |
| CRN 33611-56-2 | | | | |
| CMF C9 H18 N O2 | | | | |



CM 2

CRN 21228-90-0
CMF C H3 O4 S

Me-O-SO₃⁻

L44 ANSWER 34 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:582218 HCAPLUS

DOCUMENT NUMBER: 139:125171

TITLE: Ink-jet printing sheet containing cationic organic particles

INVENTOR(S): Tomita, Yoshihiko; Kusumoto, Masaya; Ishida, Tadashi

PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

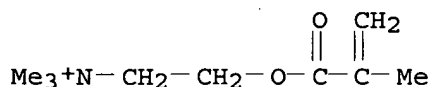
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|---|------|----------|-----------------|------------|
| | JP 2003211831 | A2 | 20030730 | JP 2002-15232 | 20020124 |
| PRIORITY APPLN. INFO.: | | | | JP 2001-348495 | A 20011114 |
| AB | The sheet comprises a support coated with ≥1 layer containing cationic organic particles with average particle size 1-1000 nm formed. by polymerization using an amphoteric surfactant. The sheet shows good ink absorption, and high. d. images with good water resistance and lightfastness are obtained. | | | | |
| IC | ICM B41M005-00 | | | | |
| | ICS B41J002-01 | | | | |
| CC | 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| | Section cross-reference(s): 38 | | | | |
| IT | 9003-08-1, Melamine resin 9003-55-8, Butadiene-styrene copolymer | | | | |
| | 9011-05-6, Urea resin 24937-78-8, Ethylene-vinyl acetate copolymer | | | | |
| | 25232-40-0, Butadiene-methyl methacrylate copolymer 26161-33-1, Shallol DM 283P | | | | |
| | RL: TEM (Technical or engineered material use); USES (Uses) | | | | |
| | (ink-jet printing sheet containing cationic organic particles) | | | | |
| IT | 26161-33-1, Shallol DM 283P | | | | |
| | RL: TEM (Technical or engineered material use); USES (Uses) | | | | |
| | (ink-jet printing sheet containing cationic organic particles) | | | | |
| RN | 26161-33-1 HCAPLUS | | | | |
| CN | Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, homopolymer (9CI) (CA INDEX NAME) | | | | |
| CM | 1 | | | | |
| CRN | 5039-78-1 | | | | |
| CMF | C9 H18 N O2 . Cl | | | | |



● Cl⁻

L44 ANSWER 35 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:540925 HCAPLUS

DOCUMENT NUMBER: 139:108727

TITLE: Ink-jet recording sheet and its manufacturing method

INVENTOR(S): Kikuchi, Masako; Endo, Kiyoshi; Mamiya, Chikao; Sakai, Tomohiko

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| JP 2003200658 | A2 | 20030715 | JP 2002-306866 | 20021022 |
| PRIORITY APPLN. INFO.: | | | JP 2001-337616 | A 20011102 |

AB In manufacture of the sheet by coating a solution containing pigment dispersion and a

water-soluble polymer on a support, the pigment dispersion contains a cationic polymer (A), and the dispersion is mixed with the water-soluble polymer solution after the adsorption of A on the pigment is stabilized. In the manufacture, the inorg. particle dispersion is mixed with the water-soluble polymer solution when the pigment average particle size is 150-300 nm. The paper

obtained by the method is also claimed. It shows improved ink absorbency, preventing cracks and coating defects.

IC ICM B41M005-00

ICS B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 7631-86-9, Aerosil A 300, uses 84135-65-9, Finesil T 32
108188-68-7 177646-18-3, Poval PVA 235

RL: TEM (Technical or engineered material use); USES (Uses)
(ink-jet printing sheet containing pigment dispersion and water-soluble polymer)

IT 108188-68-7

RL: TEM (Technical or engineered material use); USES (Uses)
(ink-jet printing sheet containing pigment dispersion and water-soluble polymer)

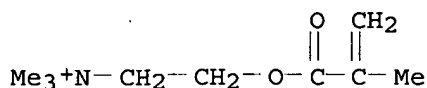
RN 108188-68-7 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

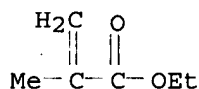


● Cl⁻

CM 2

CRN 97-63-2

CMF C6 H10 O2



L44 ANSWER 36 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:371636 HCAPLUS

DOCUMENT NUMBER: 138:376458

TITLE: Ink-jet printing sheet containing semi-interpenetrating polymer networks

INVENTOR(S): Kita, Shinya

PATENT ASSIGNEE(S): Negami Chemical Industrial Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

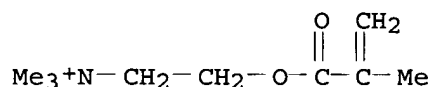
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|--|----------|-----------------|----------|
| JP 2003136833 | A2 | 20030514 | JP 2001-339422 | 20011105 |
| PRIORITY APPLN. INFO.: | | | JP 2001-339422 | 20011105 |
| AB The ink receiving layer of the sheet is formed by coating and heating a composition essentially containing a carboxy-containing polymer, a water-soluble monomer, polyvinylpyrrolidone, a polymerization initiator, and a crosslinking agent. The coating solution is also claimed. The sheet shows high transparency, good ink drying property, and water resistance. | | | | |
| IC | ICM B41M005-00 | | | |
| | ICS B41J002-01 | | | |
| CC | 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | |
| | Section cross-reference(s): 38 | | | |
| IT | 26161-33-1P, Trimethylaminoethyl methacrylate chloride polymer | | | |
| | 118821-63-9P | | | |
| | RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) | | | |

(semi-interpenetrating polymer networks; **ink-jet**
printing **sheet** containing semi-interpenetrating polymer networks)
IT 26161-33-1P, Trimethylaminoethyl methacrylate chloride polymer
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(semi-interpenetrating polymer networks; **ink-jet**
printing **sheet** containing semi-interpenetrating polymer networks)
RN 26161-33-1 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,
chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1
CMF C9 H18 N O2 . Cl



● Cl⁻

L44 ANSWER 37 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:346753 HCAPLUS
DOCUMENT NUMBER: 138:354714
TITLE: Cationic polymer and inkjet recording **sheet**
INVENTOR(S): Yoshimura, Kosaku; Nakano, Ryoichi; Tsujihata,
Shigetomo
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 49 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|------------|
| EP 1306395 | A2 | 20030502 | EP 2002-23787 | 20021025 |
| EP 1306395 | A3 | 20030611 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| JP 2003200657 | A2 | 20030715 | JP 2002-123455 | 20020425 |
| US 2003118791 | A1 | 20030626 | US 2002-278997 | 20021024 |
| US 6743850 | B2 | 20040601 | | |
| PRIORITY APPLN. INFO.: | | | JP 2001-329800 | A 20011026 |
| | | | JP 2002-123455 | A 20020425 |

AB Provided are a cationic polymer and an inkjet recording **sheet**
exhibiting a superior printing d. of an image without lowering ink
receptivity. The cationic polymer is represented by X1X2X3SiYAmBn:
wherein X1, X2 and X3 are a hydrogen atom, an alkyl group, an alkoxy
group, or an aryloxy group; R1 is a hydrogen atom or an alkyl group having
1 to 4 carbon atoms; R2, R3 and R4 are a hydrogen atom, or an alkyl group

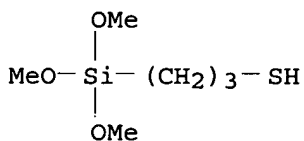
having 1 to 18 carbon atoms, an aryl group or an aralkyl group; Z: -O- or -NH-; Y2 is a bivalent linking group having 1 to 8 carbon atoms, which may have therein a linking heteroatom; A is a quaternary ammonium group-containing acrylate monomer; B is a copolymerizable monomer. The inkjet recording sheet has, on a substrate, a colorant-accepting layer containing cationic polymer modified inorg. pigment particles. A cationic polymer was prepared by telomerization of 3-Mercaptopropyltrimethoxysilane and N-[2-(methacryloyloxy)ethyl]-N,N,N-trimethylammonium chloride.

IC ICM C08F020-34
 CC 37-3 (Plastics Manufacture and Processing)
 Section cross-reference(s): 74
 ST cationic polymer ink jet recording sheet
 IT Ink-jet recording sheets
 (cationic polymer and inkjet recording sheet)
 IT 518071-18-6P 518071-19-7P 518071-20-0P 518071-21-1P
 518071-22-2P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (cationic polymer and inkjet recording sheet)
 IT 1318-23-6, Boehmite 1344-28-1, Alumina, uses 7631-86-9, Silica, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (pigment particles; cationic polymer and inkjet recording sheet)
 IT 518071-18-6P 518071-20-0P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (cationic polymer and inkjet recording sheet)
 RN 518071-18-6 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0

CMF C6 H16 O3 S Si



CM 2

CRN 26161-33-1

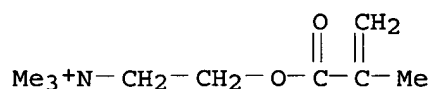
CMF (C9 H18 N O2 . Cl)x

CCI PMS

CM 3

CRN 5039-78-1

CMF C9 H18 N O2 . Cl



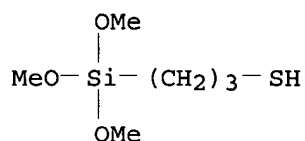
● Cl⁻

RN 518071-20-0 HCAPLUS
 CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0

CMF C6 H16 O3 S Si



CM 2

CRN 28214-37-1

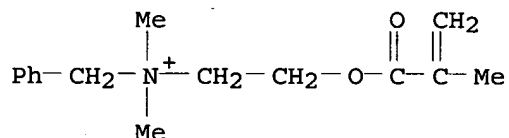
CMF (C15 H22 N O2 . Cl)x

CCI PMS

CM 3

CRN 46917-07-1

CMF C15 H22 N O2 . Cl



● Cl⁻

L44 ANSWER 38 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:346742 HCAPLUS

DOCUMENT NUMBER: 138:346516

TITLE: Multilayered ink-jet recording element comprising pigments

INVENTOR(S): Schoebe, Volker; Kuhrt, Angela; Weigt, Wilfried; Roth,

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

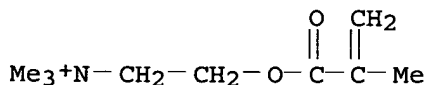
PATENT ASSIGNEE(S): Christoph; Meier, Frank
 Emtec Magnetics G.m.b.H., Germany; Few Chemicals
 G.m.b.H.
 SOURCE: Eur. Pat. Appl., 8 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|--|----------|------------------|----------|
| EP 1306225 | A2 | 20030502 | EP 2002-23567 | 20021023 |
| EP 1306225 | A3 | 20040818 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| DE 10153274 | A1 | 20030508 | DE 2001-10153274 | 20011029 |
| NO 2002005178 | A | 20030430 | NO 2002-5178 | 20021028 |
| PRIORITY APPLN. INFO.: DE 2001-10153274 A 20011029 | | | | |
| AB The invention relates to a pigment-containing multilayered recording material for an ink jet printing and its manufacture. The material contains surface-modified silica pigment, polymeric color fixing material, and plasticizer in an undercoat layer and surface-modified Al oxide pigment in an overcoat layer. The material shows high drying rate and shiny surface. The material is especially suitable for producing photog. quality printout. | | | | |
| IC | ICM B41M005-00 | | | |
| CC | 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | |
| Section cross-reference(s): 42 | | | | |
| IT | 26062-79-3, Polydimethyldiallylammoniumchloride 36347-56-5 | | | |
| 116076-07-4 131954-48-8, Methacrylamidopropyltrimethylammonium chloride-N-vinylpyrrolidone copolymer | | | | |
| RL: TEM (Technical or engineered material use); USES (Uses) | | | | |
| (color fixing material in undercoat layer; pigment-containing multilayered ink-jet printing paper suitable for producing photog. quality printout) | | | | |
| IT | 36347-56-5 | | | |
| RL: TEM (Technical or engineered material use); USES (Uses) | | | | |
| (color fixing material in undercoat layer; pigment-containing multilayered ink-jet printing paper suitable for producing photog. quality printout) | | | | |
| RN | 36347-56-5 HCAPLUS | | | |
| CN | Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with ethyl 2-propenoate (9CI) (CA INDEX NAME) | | | |

CM 1

CRN 5039-78-1

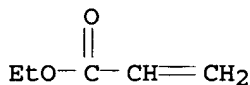
CMF C9 H18 N O2 . Cl



● Cl⁻

CM 2

CRN 140-88-5
CMF C5 H8 O2



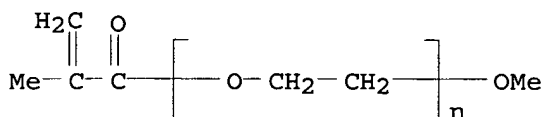
L44 ANSWER 39 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2003:216786 HCAPLUS
 DOCUMENT NUMBER: 138:245651
 TITLE: Yellowing-resistant ink-jet printing sheets containing
 cationic polymers in ink-receiving layers
 INVENTOR(S): Tsujibata, Shigetomo; Nakano, Ryoichi
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| JP 2003080838 | A2 | 20030319 | JP 2001-279265 | 20010914 |
| PRIORITY APPLN. INFO.: | | | JP 2001-279265 | 20010914 |
| AB The sheets have ink receptor layers which are formed from dispersions containing containing microparticulate inorg. pigments (e.g., silica, pseudo boehmite), (meth)acrylate polymers having $\text{CH}_2\text{CR}_1[\text{Q}(\text{R}_2\text{O})_m(\text{R}_3\text{O})_n\text{R}_4]$ ($\text{R}_1 = \text{H}$, Me; $\text{R}_2, \text{R}_3 = \text{alkylene}$; $\text{R}_4 = \text{H}$, C1-18 alkyl, aryl, aralkyl, OCOR' ; $\text{Q} = \text{CO}_2$, CONR'' , O (R' , $\text{R}'' = \text{H}$, alkyl, aralkyl, aryl); $m, n \geq 1$) and units having cationic groups, and optionally water-soluble resins such as PVA. | | | | |
| IC ICM B41M005-00 ICS B41J002-01; C09D125-18; C09D129-04; C09D129-10; C09D133-14; C09D133-24; C09D139-00; C09D165-00 | | | | |
| CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) Section cross-reference(s): 38, 43 | | | | |
| IT 142517-79-1P, Boric acid-vinyl alcohol copolymer 501930-16-1P , Methoxypolyethylene glycol monomethacrylate-Light Ester DQ 100 graft copolymer 501931-34-6P, Methoxypolyethylene glycol monomethacrylate- trimethylvinylbenzylammonium chloride graft copolymer 501931-41-5P, Oxirane-trimethylvinylbenzylammonium chloride graft copolymer methyl ether RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (receptor layers; light- and blurring-resistant ink- jet receptor sheets containing polyoxyalkylene-grafted cationic polymers) | | | | |
| IT 501930-16-1P , Methoxypolyethylene glycol monomethacrylate-Light Ester DQ 100 graft copolymer RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (receptor layers; light- and blurring-resistant ink- jet receptor sheets containing polyoxyalkylene-grafted | | | | |

cationic polymers)
 RN 501930-16-1 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with α -(2-methyl-1-oxo-2-propenyl)- ω -methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

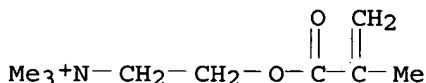
CM 1

CRN 26915-72-0
 CMF (C2 H4 O)_n C5 H8 O2
 CCI PMS



CM 2

CRN 5039-78-1
 CMF C9 H18 N O2 . Cl



● Cl⁻

L44 ANSWER 40 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2002:841045 HCAPLUS
 DOCUMENT NUMBER: 137:331121
 TITLE: Ink-jet printing paper containing cationic ink-fixing agent
 INVENTOR(S): Koro, Takaaki; Nishimura, Masaki
 PATENT ASSIGNEE(S): Oji Paper Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2002321437 | A2 | 20021105 | JP 2001-124881 | 20010423 |
| PRIORITY APPLN. INFO.: | | | JP 2001-124881 | 20010423 |

AB The paper, having Stoeckigt size (JIS P 8112) 5-30 s, comprises (A) 70-95 cationic ink-fixing agent and (B) 5-30 weight% (based on the total solid component) binder. In the paper, the ink fixing agent is a copolymer of 50-100 (meth)acrylic acid ester H₂C:CR(CO₂R₁) (R = H, Me; R₁ = Me, Et), and 0-15 mol% polymerizable nonionic vinyl monomer, to which cationic

property is added, and the binder is a poly(vinyl alc.) with 80-90 % saponification degree. The paper shows paper-like feeling, gives high d. images

without bleeding, and water resistance.

IC ICM B41M005-00

ICS B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 25034-86-0P, Methyl methacrylate-styrene copolymer 36347-52-1P, Methacryloyloxyethyltrimethylammonium chloride-methyl methacrylate copolymer 90386-98-4P 303009-11-2P, Acrylamidopropyldimethylbenzylammonium chloride-dimethyldiallylammonium chloride-methyl methacrylate copolymer 473809-53-9P, (3-Acrylamidopropyl)benzyltrimethylammonium chloride-methyl methacrylate copolymer

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(ink-jet printing paper containing cationic ink-fixing agent)

IT 36347-52-1P, Methacryloyloxyethyltrimethylammonium chloride-methyl methacrylate copolymer 90386-98-4P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(ink-jet printing paper containing cationic ink-fixing agent)

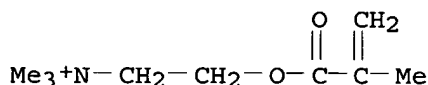
RN 36347-52-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride; polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

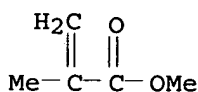


● Cl⁻

CM 2

CRN 80-62-6

CMF C5 H8 O2



RN 90386-98-4 HCAPLUS

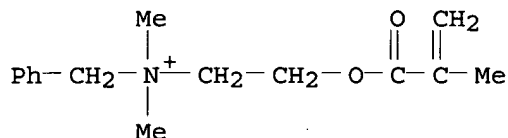
CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-

propenyl)oxy]ethyl]-, chloride, polymer with methyl 2-methyl-2-propenoate
(9CI) (CA INDEX NAME)

CM 1

CRN 46917-07-1

CMF C15 H22 N O2 . Cl

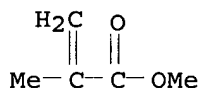


● Cl⁻

CM 2

CRN 80-62-6

CMF C5 H8 O2



L44 ANSWER 41 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:503357 HCAPLUS

DOCUMENT NUMBER: 137:64646

TITLE: Ink-jet recording sheet coated with compositions containing zirconium or aluminum compounds

INVENTOR(S): Katoh, Eisaku; Tsubaki, Yoshinori; Ushiku, Masayuki; Ohbayashi, Keiji

PATENT ASSIGNEE(S): Konica Corporation, Japan

SOURCE: Eur. Pat. Appl., 31 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| EP 1219457 | A1 | 20020703 | EP 2001-129628 | 20011212 |
| EP 1219457 | B1 | 20040818 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| JP 2002192830 | A2 | 20020710 | JP 2000-392501 | 20001225 |
| US 2002130943 | A1 | 20020919 | US 2001-15978 | 20011210 |
| US 6761942 | B2 | 20040713 | | |

PRIORITY APPLN. INFO.: JP 2000-392501 A 20001225

AB An ink jet recording sheet comprises a non-water absorptive support having thereon an ink absorptive layer comprising polyvinyl alc., a cationic

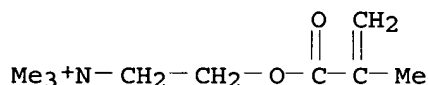
polymer, and a compound containing a zirconium or aluminum atom other than zirconium oxide and aluminum oxide, wherein a surface pH of the ink absorptive layer is 4 to 6 measured 30 min after receiving a water based ink of pH range 6 to 9 jetted from an ink jet printer in an amount of 20 mL/m². Thus, a photog. base paper coated with low d. polyethylene was coated with a coating composition comprising PVA 203, PVA 245, a cationic polymer, zirconyl acetate, water, and other additives. The obtained ink jet recording sheet exhibits minimized bleeding, and excellent ink absorability and color d. stability under high humidity.

IC ICM B41M005-00
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 43, 74
 IT 221666-03-1 406912-76-3
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (cationic polymer; manufacture of **ink-jet** recording **sheet** coated with compns. containing zirconium or aluminum compds.)
 IT 221666-03-1
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (cationic polymer; manufacture of **ink-jet** recording **sheet** coated with compns. containing zirconium or aluminum compds.)
 RN 221666-03-1 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with hexyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

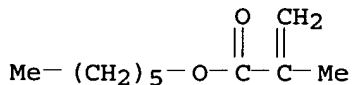


● Cl⁻

CM 2

CRN 142-09-6

CMF C10 H18 O2



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L44 ANSWER 42 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:457625 HCAPLUS

DOCUMENT NUMBER: 137:39352

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

TITLE: Ink-jet printing sheet containing cationic polymer
 INVENTOR(S): Kato, Eisaku; Tsubaki, Yoshinori
 PATENT ASSIGNEE(S): Konica Co., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| JP 2002172850 | A2 | 20020618 | JP 2000-372740 | 20001207 |
| US 2002115773 | A1 | 20020822 | US 2001-8916 | 20011203 |
| US 6699536 | B2 | 20040302 | | |

PRIORITY APPLN. INFO.: JP 2000-372740 A 20001207

AB The sheet comprises a support coated with an ink receiving layer containing (A) inorg. particles, (B) poly(vinyl alc.), (C) ≥ 2 cationic polymer with quaternary ammonium group, and (D) a compound containing Zr or Al in a mol.

(except alumina and zirconia). The ink receiving layer may contain (1) (A), (B), (C') a cationic polymer containing repeating units with ≥ 2 of quaternary ammonium group and tertiary amino group, and (D); (2) (A), (B), (C'') a cationic polymer with quaternary ammonium group and a cationic polymer with tertiary amino group, and (D); or (3) (A), (B), (C''') a cationic polymer with OH or amide group, and (D). The sheet gives images with good storage stability, water resistance, without bronzing.

IC ICM B41M005-00
 ICS B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38

IT 9017-80-5 25154-86-3 25232-42-2 26161-33-1 67907-01-1
 90216-76-5 113783-52-1 437711-01-8 437711-02-9 437711-03-0
 437711-04-1 437711-05-2 437711-06-3 437711-07-4

RL: TEM (Technical or engineered material use); USES (Uses)
 (ink-jet printing sheet containing cationic polymer and aluminum or zirconium compound)

IT 26161-33-1
 RL: TEM (Technical or engineered material use); USES (Uses)
 (ink-jet printing sheet containing cationic polymer and aluminum or zirconium compound)

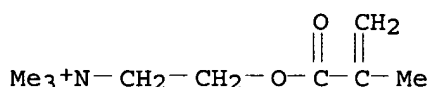
RN 26161-33-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

● Cl⁻

L44 ANSWER 43 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:204868 HCAPLUS

DOCUMENT NUMBER: 136:254564

TITLE: Pretreatment solution for ink-jet recording paper and method for ink-jet printing using same

INVENTOR(S): Oyano, Masayuki; Arita, Hitoshi; Kaneko, Tetsuya; Nagata, Nobutaka; Murakami, Kakuji; Goto, Akihiko; Konishi, Akiko; Sekine, Tomoko; Nagai, Kiyofumi

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 58 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|-------------|
| JP 2002079739 | A2 | 20020319 | JP 2001-84048 | 20010323 |
| US 2003064206 | A1 | 20030403 | US 2002-98547 | 20020318 |
| US 6786588 | B2 | 20040907 | | |
| EP 1243435 | A1 | 20020925 | EP 2002-6496 | 20020322 |
| EP 1243435 | B1 | 20040609 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| ES 2220848 | T3 | 20041216 | ES 2002-2006496 | 20020322 |
| US 2005007431 | A1 | 20050113 | US 2004-889140 | 20040713 |
| PRIORITY APPLN. INFO.: | | | | |
| | | | JP 2000-136963 | A 20000510 |
| | | | JP 2000-200777 | A 20000703 |
| | | | JP 2001-84048 | A 20010323 |
| | | | US 2002-98547 | A3 20020318 |

AB The invention relates to a pretreatment solution applied on a recording paper prior to printing, wherein the pretreatment solution contains 10-80 % of an ionic compound decreasing dispersity or viscosity of ink and has 10-10,000 mPa·s viscosity. The pretreatment solution provides the good ink-jet printability and is suitable for use in printing on both sides of a recording sheet.

IC ICM B41M005-00

ICS B41M005-00; B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 461-58-5D, Dicyandiamide, polymers 9002-98-6 25213-24-5D, acetate 42617-20-9 55655-29-3 110507-15-8 127092-96-0 404589-89-5 404589-91-9 404589-93-1 404589-94-2 404590-00-7

RL: TEM (Technical or engineered material use); USES (Uses)
(ionic compound in pretreatment solution for ink-jet recording paper)

IT 404589-93-1

RL: TEM (Technical or engineered material use); USES (Uses)
(ionic compound in pretreatment solution for **ink-jet**
recording **paper**)

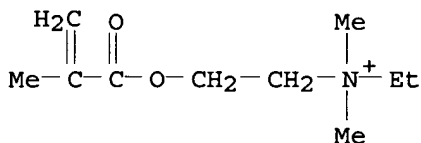
RN 404589-93-1 HCAPLUS

CN Ethanaminium, N-ethyl-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,
nitrate, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 48063-69-0

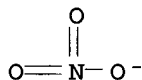
CMF C10 H20 N O2



CM 2

CRN 14797-55-8

CMF N O3



L44 ANSWER 44 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:63337 HCAPLUS

DOCUMENT NUMBER: 136:126592

TITLE: Ink-jet printing sheet with porous ink receiving layer
and its manufacture

INVENTOR(S): Nakajima, Akihisa; Ueda, Eiichi; Kurachi, Ikuro

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2002019278 | A2 | 20020123 | JP 2000-211277 | 20000712 |
| PRIORITY APPLN. INFO.: | | | JP 2000-211277 | 20000712 |

AB The printing sheet is manufactured by coating a porous ink receiving layer selected from (a) to (e) on a transparent substrate, gelled and dried; (a) poly(vinyl alc.) or its saponified product and polyhydroxy compound, (b) inorg. particles and water glass, (c) a hydrophilic resin, inorg. particles, and hydrophobic solvent with b.p. $\geq 180^\circ$ and water solubility ≤ 0.1 g/100 mL, (d) a hydrophilic resin, inorg. particles, and water-soluble organic compd with b.p. $\geq 250^\circ$, m.p. $\leq 20^\circ$, and water solubility ≥ 10 g/100 mL, and (e) a hydrophilic resin, inorg. particles, and latex dispersion polymerized in the

presence of the inorg. particles. The manufactured printing sheets are also claimed. The sheet shows high gloss an hollow ratio and less brittleness.

IC ICM B41M005-00
ICS B41M005-00; B41J002-01
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 149-91-7, Gallic acid, uses 1344-09-8, Sodium silicate 25618-55-7, Polyglycerin 252287-02-8 390400-87-0 **390400-88-1**
390400-89-2
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(ink-jet printing sheet with porous ink receiving layer)
IT **390400-88-1**
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(ink-jet printing sheet with porous ink receiving layer)
RN 390400-88-1 HCAPLUS
CN Benzenemethanaminium, N,N,N-trimethyl-ar-[(1-oxo-2-propenyl)amino]-, chloride, polymer with N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethanaminium chloride (9CI) (CA INDEX NAME)

CM 1

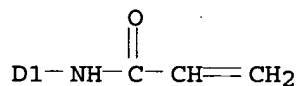
CRN 129698-21-1

CMF C13 H19 N2 O . Cl

CCI IDS



Me₃⁺N-CH₂-D1

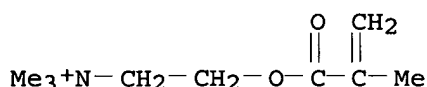


● Cl⁻

CM 2

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

● Cl⁻

L44 ANSWER 45 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:788560 HCAPLUS

DOCUMENT NUMBER: 135:336946

TITLE: Ink jet recording sheet containing mordant

INVENTOR(S): Kobayashi, Takashi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2001301314 | A2 | 20011031 | JP 2000-115438 | 20000417 |
| PRIORITY APPLN. INFO.: | | | JP 2000-115438 | 20000417 |

AB The sheet has an ink receiving layer on ≥ 1 side of a support, formed by steps of (1) coating a solution (A) containing inorg. pigment particles

with primary particle average diameter ≤ 20 nm, a water soluble resin, and a mordant, (2) providing thereon a solution (B) containing a crosslinking agent for

the water soluble resin and a mordant simultaneously when the solution (A) is coated or during decreasing drying rate period of a coated layer, and (3) curing a coated layer provided with the solution (B) by crosslinking, where coating weight ratio (cp1 : cp2) is (30-1):(1-30) [cp1 = weight of the mordant from the solution (A); cp2 = that from the solution (B)]. The sheet showed improved ink absorbency, providing images with high gloss and improved color development, light stability, and water resistance.

IC ICM B41M005-00

ICS B05D007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 25988-97-0, Polyfix 700 30551-89-4, Polyallylamine 108188-68-7 369585-09-1

RL: TEM (Technical or engineered material use); USES (Uses)

(mordant; ink-jet printing paper containing

inorg. pigment, water-soluble resin, crosslinking agent, and mordant)

IT 108188-68-7

RL: TEM (Technical or engineered material use); USES (Uses)

(mordant; ink-jet printing paper containing

inorg. pigment, water-soluble resin, crosslinking agent, and mordant)

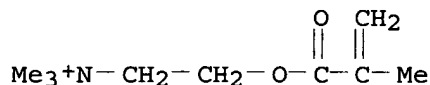
RN 108188-68-7 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

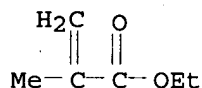


● Cl⁻

CM 2

CRN 97-63-2

CMF C6 H10 O2



L44 ANSWER 46 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:738229 HCAPLUS

DOCUMENT NUMBER: 135:296210

TITLE: Cationic latex and binder composition for ink jet recording sheet

INVENTOR(S): Otsuka, Masahiko; Kosako, Isao

PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2001277710 | A2 | 20011010 | JP 2000-101109 | 20000403 |
| PRIORITY APPLN. INFO.: | | | JP 2000-101109 | 20000403 |

AB The latex contains a copolymer obtained by polymerizing 100 parts of a composition

containing (A) a radically polymerizable monomer with a tertiary amino and/or a quaternary ammonium and (B) a monomer radically polymerizable with them in the presence of 0.5-10 parts of ≥ 1 of poly(vinylpyrrolidone), polyacrylamide, poly(ethylene imine), poly(vinylpyridine), and their copolymer. The binder composition comprises the obtained cationic latex and an inorg. filler. The latex and the binder provide improved ink absorbency, improved water resistance, lightfastness, and d. of images, and no reduction of an ink receiving layer strength.

IC ICM B41M005-00

ICS B41J002-01; C08F271-00; C08F285-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

Section cross-reference(s): 38

IT 7631-86-9, Finesil X 37, uses 9002-98-6 9003-47-8, Polyvinylpyridine
26124-21-0, Collacral VL 26161-33-1, Sanfloc C 009P

RL: TEM (Technical or engineered material use); USES (Uses)
(cationic latex binder for ink-jet printing
sheet)

IT 26161-33-1, Sanfloc C 009P

RL: TEM (Technical or engineered material use); USES (Uses)
(cationic latex binder for ink-jet printing
sheet)

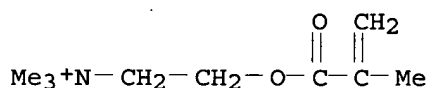
RN 26161-33-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,
chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl



● Cl⁻

L44 ANSWER 47 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:698873 HCAPLUS

DOCUMENT NUMBER: 135:249397

TITLE: Photographic paper with ink jet printable back coating

INVENTOR(S): Yamazaki, Rikimasa; Nakamura, Takeshi

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2001260521 | A2 | 20010925 | JP 2000-74051 | 20000316 |
| PRIORITY APPLN. INFO.: | | | JP 2000-74051 | 20000316 |

AB The invention relates to the ink jet printable photog. paper in which the
ink receiving porous layer comprises cationic polymer-containing hydrophilic
binders and inorg. microparticles, wherein the ink receiving layer shows
specified water-absorbing properties. The ink jet printable paper is
especially

suitable as a postcard.

IC ICM B41M005-00

ICS G03C001-76

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

IT 26161-33-1 26616-35-3 67907-01-1 108188-68-7

147232-99-3 176242-57-2 360783-17-1 360783-18-2
360783-19-3

RL: TEM (Technical or engineered material use); USES (Uses)
(cationic polymer in **ink** receiving layer of **ink**
jet printable photog. **paper** showing excellent
ink jet printability especially suitable as postcard)

IT 26161-33-1 108188-68-7 176242-57-2

RL: TEM (Technical or engineered material use); USES (Uses)
(cationic polymer in **ink** receiving layer of **ink**
jet printable photog. **paper** showing excellent
ink jet printability especially suitable as postcard)

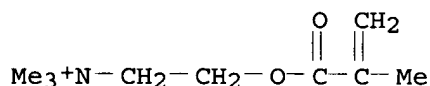
RN 26161-33-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,
chloride; homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl



● Cl⁻

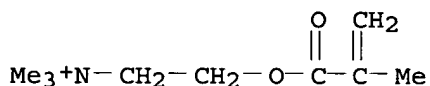
RN 108188-68-7 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,
chloride, polymer with ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

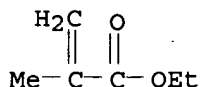


● Cl⁻

CM 2

CRN 97-63-2

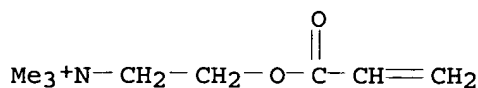
CMF C6 H10 O2



RN 176242-57-2 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride,
 polymer with butyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

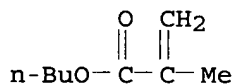
CRN 44992-01-0
 CMF C8 H16 N O2 . Cl



● Cl⁻

CM 2

CRN 97-88-1
 CMF C8 H14 O2



L44 ANSWER 48 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:406175 HCAPLUS

DOCUMENT NUMBER: 135:12152

TITLE: Ink jet printing paper containing decoloration
 preventing agent and its manufacture

INVENTOR(S): Kato, Eisaku; Hatano, Osamu

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----------------------------------|------|----------|-----------------|----------|
| JP 2001150796 | A2 | 20010605 | JP 1999-337384 | 19991129 |
| PRIORITY APPLN. INFO.: | | | JP 1999-337384 | 19991129 |
| OTHER SOURCE(S): MARPAT 135:12152 | | | | |

AB The paper comprises a support having thereon an ink receiving layer containing
 a compound with a substructure comprising a phenolic OH and -SR (R = H,

aliphatic or aromatic group) in a mol. It is manufactured by coating an aqueous solution containing fine oil droplets containing the above compound. It shows improved image storage stability, ink absorbency, and gloss, preventing blotting.

IC ICM B41M005-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 108188-68-7 320618-59-5

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(cationic polymer; **ink-jet printing paper** with **ink** receiving layer containing phenolic mercapto compound as decoloration preventing agent)

IT 108188-68-7

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(cationic polymer; **ink-jet printing paper** with **ink** receiving layer containing phenolic mercapto compound as decoloration preventing agent)

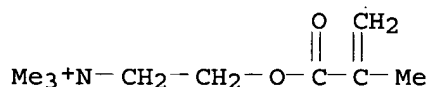
RN 108188-68-7 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl

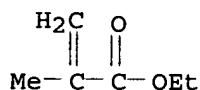


● Cl⁻

CM 2

CRN 97-63-2

CMF C6 H10 O2



L44 ANSWER 49 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:369615 HCAPLUS

DOCUMENT NUMBER: 134:374071

TITLE: Ink-jet printing sheet with ink-receiving layer containing hardened hydrophilic binder

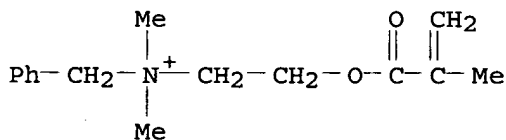
INVENTOR(S): Obayashi, Keiji; Tsubaki, Yoshinori

PATENT ASSIGNEE(S): Konica Co., Japan

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|---|----------|-----------------|----------|
| JP 2001138621 | A2 | 20010522 | JP 1999-321314 | 19991111 |
| PRIORITY APPLN. INFO.: | | | JP 1999-321314 | 19991111 |
| AB | The sheet comprises a non-water-absorbing support having thereon a porous ink absorbing layer with 3.5-8 pH, comprising inorg. particles with average diameter ≤200 nm and a hydrophilic binder hardened with a poly(isocyanate) group hardener. It shows high water absorbency and improved water and bleeding resistance. | | | |
| IC | ICM B41M005-00 ICS B41J002-01; C08K007-18; C08L075-04 | | | |
| CC | 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) Section cross-reference(s): 38 | | | |
| IT | 28214-37-1 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (ink-jet printing sheet with ink -receiving layer containing hydrophilic binder hardened with isocyanate) | | | |
| IT | 28214-37-1 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (ink-jet printing sheet with ink -receiving layer containing hydrophilic binder hardened with isocyanate) | | | |
| RN | 28214-37-1 HCAPLUS | | | |
| CN | Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, homopolymer (9CI) (CA INDEX NAME) | | | |
| CM | 1 | | | |
| CRN | 46917-07-1 | | | |
| CMF | C15 H22 N O2 . Cl | | | |



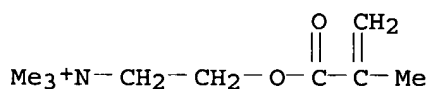
● Cl⁻

L44 ANSWER 50 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2001:106300 HCAPLUS
 DOCUMENT NUMBER: 134:170844
 TITLE: Ink-jet recording paper, method for manufacture thereof, and method for color ink-jet recording using same
 INVENTOR(S): Saito, Yoichi; Kasahara, Kenzo

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

PATENT ASSIGNEE(S): Konica Co., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|---|-------------|-----------------|-------------|
| | JP 2001039026 | A2 | 20010213 | JP 1999-220756 | 19990804 |
| PRIORITY APPLN. INFO.: | | | | JP 1999-220756 | 19990804 |
| AB | The title recording paper has porous ink-absorbing layers containing a hydrophilic binder and inorg. fine particles on a non-water absorbing support, wherein the ink-absorbing layer contains ≥ 2 cationic polymers. The recording sheet shows little ink-blotting nor ink-bronzing. | | | | |
| IC | ICM B41M005-00 ICS B41J002-01 | | | | |
| CC | 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| IT | 26161-33-1 | 32698-04-7 | 39660-17-8 | 252904-53-3 | 320618-59-5 |
| | 324768-63-0 | 324768-65-2 | 324768-66-3 | 324768-67-4 | |
| | RL: TEM (Technical or engineered material use); USES (Uses) (cationic polymer in ink-absorbing layer of ink-jet recording paper) | | | | |
| IT | 26161-33-1 | RL: TEM (Technical or engineered material use); USES (Uses) (cationic polymer in ink-absorbing layer of ink-jet recording paper) | | | |
| RN | 26161-33-1 HCAPLUS | | | | |
| CN | Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, homopolymer (9CI) (CA INDEX NAME) | | | | |
| CM | 1 | | | | |
| CRN | 5039-78-1 | | | | |
| CMF | C9 H18 N O2 . Cl | | | | |



● Cl⁻

L44 ANSWER 51 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2001:69164 HCAPLUS
 DOCUMENT NUMBER: 134:139235
 TITLE: Additive applied on ink-jet recording paper and method for manufacture thereof
 INVENTOR(S): Hashikuchi, Yoshiharu; Ishii, Kazuhiro; Katayama, Masato; Komata, Hiroshi
 PATENT ASSIGNEE(S): Harima Chemicals, Inc., Japan; Canon Inc.
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| JP 2001026179 | A2 | 20010130 | JP 2000-138483 | 20000511 |
| PRIORITY APPLN. INFO.: | | | JP 1999-129370 | A 19990511 |

AB The additive has 50-1000 mPa.s viscosity as a 20 % solution and contains a polymer having monomer unit of quaternary ammonium salt of alkyl (meth)acrylate with a benzyl group or of quaternary ammonium salt of alkyl (meth)acrylamide with a benzyl group. The additive improves the printing characteristics such as resolution, color-developing, moisture-resistance.

IC ICM B41M005-00

ICS B41J002-01; C08F002-00; C08F008-44; C08F020-34; C08F020-60

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 28214-37-1P, Benzyl(methacryloyloxyethyl)dimethylammonium chloride homopolymer 56328-29-1P 120704-67-8P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (additive coated on ink-jet recording paper)

IT 28214-37-1P, Benzyl(methacryloyloxyethyl)dimethylammonium chloride homopolymer
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (additive coated on ink-jet recording paper)

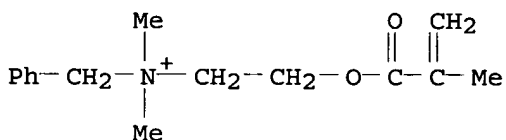
RN 28214-37-1 HCAPLUS

CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 46917-07-1

CMF C15 H22 N O2 . Cl



● Cl⁻

L44 ANSWER 52 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:765218 HCAPLUS

DOCUMENT NUMBER: 133:327703

TITLE: Ink-jet printing paper and processing agent for it

INVENTOR(S): Hashikuchi, Yoshiharu; Ishii, Kazuhiro

PATENT ASSIGNEE(S): Harima Chemicals, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

DOCUMENT TYPE: CODEN: JKXXAF
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: Japanese
 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2000301822 | A2 | 20001031 | JP 1999-113016 | 19990421 |
| PRIORITY APPLN. INFO.: | | | JP 1999-113016 | 19990421 |

AB The title processing agent contains a solution containing a copolymer obtained by reaction of cationic, radically polymerizing monomers 10-50, (meth)acrylic esters CH₂:CR₁CO₂R₂ (R₁ = H or Me; R₂ = Me or Et) 50-90, and other nonionic copolymerizable vinyl monomers 0-20 mol% in the presence of a poly(vinyl alc.)-type or polyethylene oxide-type resin. The printing paper comprises a support containing the agent on the surface or inside. The paper shows improved adaptability to ink-jet printing apparatus and provides high d. images with high sharpness and water resistance.

IC ICM B41M005-00
 ICS B41J002-01; D21H019-20

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38

IT 36347-52-1P, Methacryloyloxyethyl trimethyl ammonium chloride-methyl methacrylate copolymer 90386-98-4P, Benzyl(methacryloyloxyethyl)dimethylammonium chloride-methyl methacrylate copolymer
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (processing agent containing acrylic polymer and poly(vinyl alc.) or polyethylene oxide for ink-jet printing paper)

IT 36347-52-1P, Methacryloyloxyethyl trimethyl ammonium chloride-methyl methacrylate copolymer 90386-98-4P, Benzyl(methacryloyloxyethyl)dimethylammonium chloride-methyl methacrylate copolymer
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (processing agent containing acrylic polymer and poly(vinyl alc.) or polyethylene oxide for ink-jet printing paper)

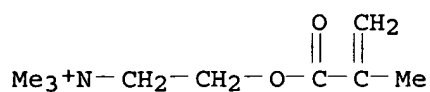
RN 36347-52-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

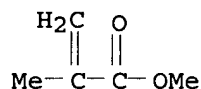
CMF C9 H18 N O2 . Cl



● Cl⁻

CM 2

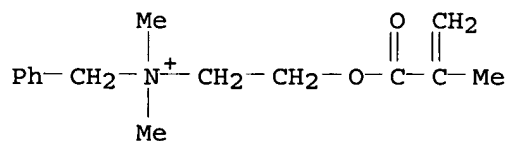
CRN 80-62-6
CMF C5 H8 O2



RN 90386-98-4 HCAPLUS
CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

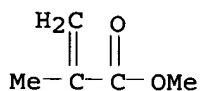
CRN 46917-07-1
CMF C15 H22 N O2 . Cl



● Cl⁻

CM 2

CRN 80-62-6
CMF C5 H8 O2



L44 ANSWER 53 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:634872 HCAPLUS

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

DOCUMENT NUMBER: 133:230408
 TITLE: Ink-jet recording paper containing cationic resin and silica
 INVENTOR(S): Suzuki, Akira; Sunakawa, Hirokazu; Asano, Shinichi
 PATENT ASSIGNEE(S): Oji Paper Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2000247021 | A2 | 20000912 | JP 1999-56837 | 19990304 |
| PRIORITY APPLN. INFO.: | | | JP 1999-56837 | 19990304 |

AB The paper comprises a substrate coated with ≥ 1 recording layers 1 of which contains a cationic copolymer having silanol groups and tertiary amino or quaternary ammonium salt groups and silica fine particles of which the average particle diams. of the primary and secondary particles are 3-40 and 10-500 nm, resp. The paper shows high gloss, ink absorption, and surface strength and provides high d. images.

IC ICM B41M005-00
 ICS B41J002-01; D21H019-32; D21H019-36; D21H027-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38

IT 7631-86-9, Silica, uses **28474-62-6**, Acrylamide-2-hydroxy-3-methacryloxypropyltrimethylammonium chloride copolymer 292044-96-3, Ethyl acrylate-KBM 503-Light Ester DM-styrene copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (ink-jet printing paper containing cationic resin and silica)

IT **28474-62-6**, Acrylamide-2-hydroxy-3-methacryloxypropyltrimethylammonium chloride copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (ink-jet printing paper containing cationic resin and silica)

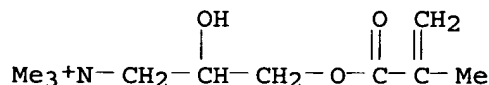
RN **28474-62-6** HCAPLUS

CN 1-Propanaminium, 2-hydroxy-N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 13052-11-4

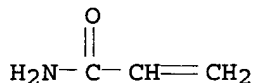
CMF C10 H20 N O3 . C1



● Cl⁻

CM 2

CRN 79-06-1
CMF C3 H5 N O



L44 ANSWER 54 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:251983 HCAPLUS

DOCUMENT NUMBER: 132:258201

TITLE: Ink-jet printing paper containing dye-fixing particles and crosslinked polysaccharide

INVENTOR(S): Inaba, Yoshihiro; Ozaki, Sadayoshi

PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

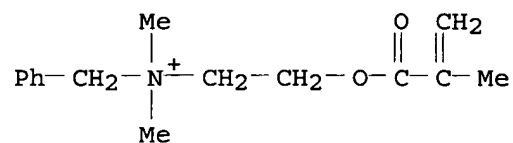
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|---|------|----------|-----------------|----------|
| | JP 2000108499 | A2 | 20000418 | JP 1998-301630 | 19981008 |
| PRIORITY APPLN. INFO.: | | | | JP 1998-301630 | 19981008 |
| AB | The paper contains dye-fixing particles and a polysaccharide gel crosslinked with a polyvalent metal ion. The paper shows good ink absorption, gives high d. and resolution images without blotting, and is suitable for high speed printing. | | | | |
| IC | ICM B41M005-00 | | | | |
| | ICS C08F220-34; C08F220-56 | | | | |
| CC | 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| IT | 9005-35-0P, Calcium alginate 90386-98-4P 108188-68-7P , Ethyl methacrylate-2-trimethylammoniummethyl methacrylate chloride copolymer | | | | |
| | RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) | | | | |
| | (ink-jet printing paper containing dye-fixing particles and crosslinked polysaccharide) | | | | |
| IT | 90386-98-4P 108188-68-7P , Ethyl methacrylate-2-trimethylammoniummethyl methacrylate chloride copolymer | | | | |
| | RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) | | | | |
| | (ink-jet printing paper containing dye-fixing particles and crosslinked polysaccharide) | | | | |
| RN | 90386-98-4 HCAPLUS | | | | |
| CN | Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME) | | | | |

CM 1

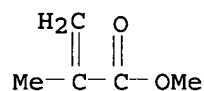
CRN 46917-07-1
CMF C15 H22 N O2 . C1



● Cl⁻

CM 2

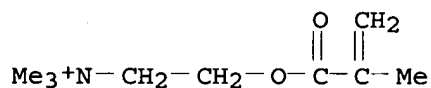
CRN 80-62-6
CMF C5 H8 O2



RN 108188-68-7 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,
chloride, polymer with ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

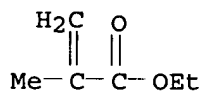
CRN 5039-78-1
CMF C9 H18 N O2 . Cl



● Cl⁻

CM 2

CRN 97-63-2
CMF C6 H10 O2



L44 ANSWER 55 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:247365 HCAPLUS

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

DOCUMENT NUMBER: 132:271696
 TITLE: Water-proofing agent composition for recording paper and ink jet recording paper
 INVENTOR(S): Gota, Tetsuya; Nakahara, Yutaka; Komiya, Kaoru
 PATENT ASSIGNEE(S): Asahi Denka Kogyo K. K., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2000108500 | A2 | 20000418 | JP 1998-281163 | 19981002 |
| PRIORITY APPLN. INFO.: | | | JP 1998-281163 | 19981002 |

OTHER SOURCE(S): MARPAT 132:271696

AB The title water-proofing agent composition contains a cationic polymer comprising ≥ 1 polymerizing compound having polymerizing groups and cationic N atom in its mol. as a monomer component and a water-soluble UV absorbent. The ink jet recording paper comprises a paper support coated with an aqueous solution or dispersion liquid containing the composition. The recording paper provides

high quality images with improved water resistance and lightfastness.

IC ICM B41M005-00

ICS C09D139-02; C09D201-02; D21H019-10; D21H019-20; D21H019-24

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 4065-45-6 26062-79-3, Dimethyldiallylammonium chloride homopolymer
 26161-33-1 26590-05-6, Acrylamide-dimethyldiallylammonium
 chloride copolymer 35164-09-1 76656-36-5

RL: TEM (Technical or engineered material use); USES (Uses)

(ink-jet printing paper coated with water-resistant composition containing cationic polymer and UV absorbent)

IT 26161-33-1

RL: TEM (Technical or engineered material use); USES (Uses)

(ink-jet printing paper coated with water-resistant composition containing cationic polymer and UV absorbent)

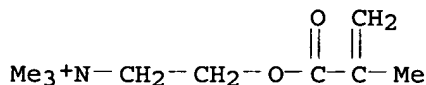
RN 26161-33-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl



● Cl⁻

L44 ANSWER 56 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:197795 HCAPLUS
 DOCUMENT NUMBER: 132:243970
 TITLE: Ink-jet recording paper with high gloss
 INVENTOR(S): Obayashi, Keiji; Saito, Yoichi; Tsuchiya, Masaru
 PATENT ASSIGNEE(S): Konica Co., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2000085240 | A2 | 20000328 | JP 1998-255066 | 19980909 |
| PRIORITY APPLN. INFO.: | | | JP 1998-255066 | 19980909 |

AB The title ink-jet recording paper possesses an ink-receptive layer formed by coating an aqueous coating solution of a mixture of a 1st aqueous solution containing inorg. fine particles having an anionic surface and a cationic polymer and a 2nd aqueous solution containing gelatin, 2nd inorg. fine particles having an anionic surface, ≥ 1 selected from SO₃H-containing organic compds. and CO₂H-containing compds., and a cationic polymer on a support followed by drying. The 1st aqueous solution may contain only the inorg. fine particles. The recording paper shows high gloss and water resistance.

IC ICM B41M005-00
 ICS B32B027-00; B41J002-01; B42D015-00; D21H027-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 9017-80-5 67907-01-1 212909-22-3
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (ink-jet printing paper with high gloss)

IT 212909-22-3
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (ink-jet printing paper with high gloss)

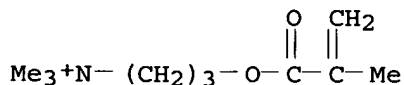
RN 212909-22-3 HCAPLUS

CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 55918-38-2

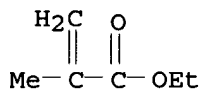
CMF C10 H20 N O2 . Cl



● Cl⁻

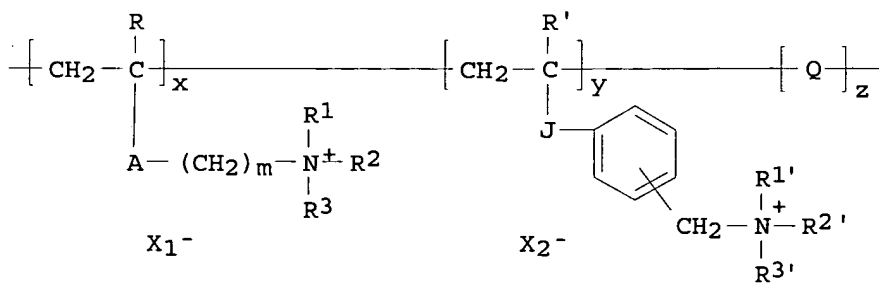
CM 2

CRN 97-63-2
CMF C6 H10 O2



L44 ANSWER 57 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1999:802678 HCAPLUS
 DOCUMENT NUMBER: 132:42867
 TITLE: Ink-jet printing paper containing inorganic particle and cationic polymer
 INVENTOR(S): Kasahara, Kenzo; Mochizuki, Yoshihiro; Saito, Yoichi
 PATENT ASSIGNEE(S): Konica Co., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------------|------|----------|-----------------|----------|
| JP 11348409 | A2 | 19991221 | JP 1998-178127 | 19980610 |
| PRIORITY APPLN. INFO.: GI | | | JP 1998-178127 | 19980610 |



AB The sheet has an ink absorbing layer containing a hydrophilic binder and cationic composite particles comprising inorg. particles with primary average particle size ≤ 30 nm and water-soluble cationic polymer I (R, R' = H, C1-4 alkyl; R1-3, R1'-3' = alkyl; A, J = divalent linkage; X1-, X2- = anion; Q = repeating unit derived from monomer having ethylenic unsatd. bond; x = 10-95, y = 5-90, z = 0-60 mol%; m = 1-6) with average mol. weight $\leq 100,000$. The sheet shows good lightfastness and gives images without blotting.

IC ICM B41M005-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

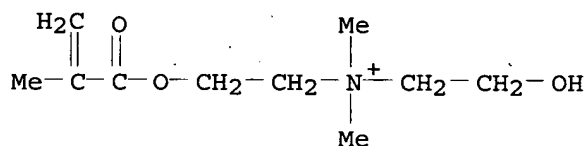
Section cross-reference(s): 38

IT 7631-86-9, Aerosil A 200, uses 252287-02-8 252287-03-9
252287-04-0

RL: TEM (Technical or engineered material use); USES (Uses)

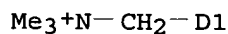
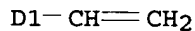
KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

(ink-jet printing paper containing composite
particle comprising inorg. particle and cationic polymer)
IT 252287-03-9
RL: TEM (Technical or engineered material use); USES (Uses)
(ink-jet printing paper containing composite
particle comprising inorg. particle and cationic polymer)
RN 252287-03-9 HCAPLUS
CN Benzenemethanaminium, ar-ethenyl-N,N,N-trimethyl-, chloride, polymer with
N-(2-hydroxyethyl)-N,N-dimethyl-2-[(2-methyl-1-oxo-2-
propenyl)oxy]ethanaminium chloride (9CI) (CA INDEX NAME)
CM 1
CRN 45128-97-0
CMF C10 H20 N O3 . Cl



● Cl⁻

CM 2
CRN 26616-35-3
CMF C12 H18 N . Cl
CCI IDS

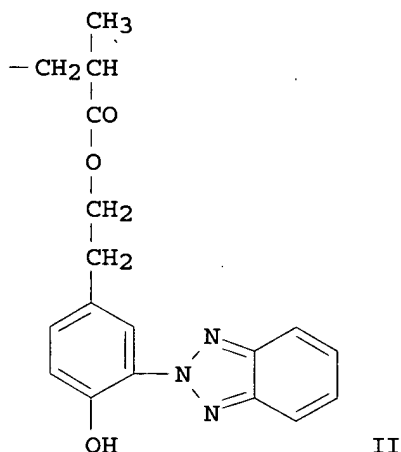
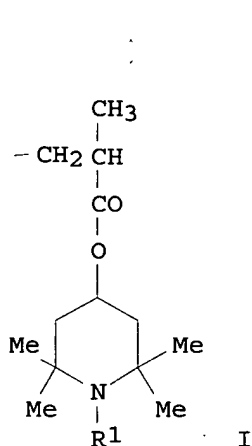


● Cl⁻

L44 ANSWER 58 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:727989 HCAPLUS
DOCUMENT NUMBER: 131:344264
TITLE: Ink-jet printing sheet suitable for aqueous ink

INVENTOR(S): Tsuchida, Tetsuo; Meguro, Tatsuya
 PATENT ASSIGNEE(S): Oji Paper Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------------|------|----------|-----------------|----------|
| JP 11314451 | A2 | 19991116 | JP 1998-123472 | 19980506 |
| PRIORITY APPLN. INFO.: GI | | | JP 1998-123472 | 19980506 |



AB The title sheet, on which images are formed by using aqueous inks, contains a water-soluble cationic polymer containing ≥ 1 of monomer units I and II ($R_1 = H$ or Me). The sheet provides a high quality image with high d., water resistance, and lightfastness.

IC ICM B41M005-00

ICS B32B027-30; C09D133-14; C09D139-02; C09D139-04; C08F020-34;
 C08F026-02; C08F026-06

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 211868-91-6 249751-61-9 249751-62-0

249751-63-1 249751-64-2 249751-65-3 249751-67-5

249751-68-6 249751-69-7 249751-70-0 249751-72-2 249751-74-4

249751-76-6 249751-78-8 249751-80-2 249751-82-4

249751-84-6 249751-86-8 249751-89-1 249751-91-5 249751-93-7

249751-95-9 249751-96-0

RL: TEM (Technical or engineered material use); USES (Uses)
 (ink-jet printing sheets containing cationic polymer)

IT 249751-61-9 249751-62-0 249751-63-1

249751-74-4 249751-76-6 249751-78-8

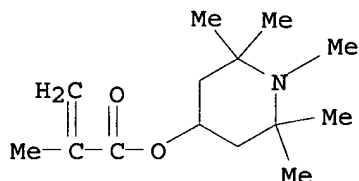
RL: TEM (Technical or engineered material use); USES (Uses)
 (ink-jet printing sheets containing cationic polymer)

polymer)
 RN 249751-61-9 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride,
 polymer with 1,2,2,6,6-pentamethyl-4-piperidinyl 2-methyl-2-propenoate
 (9CI) (CA INDEX NAME)

CM 1

CRN 68548-08-3

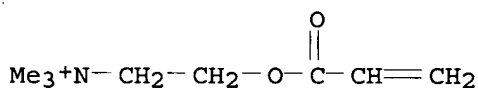
CMF C14 H25 N O2



CM 2

CRN 44992-01-0

CMF C8 H16 N O2 . Cl



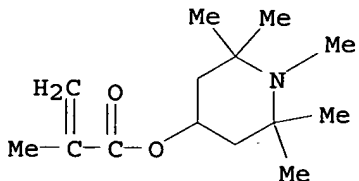
● Cl -

RN 249751-62-0 HCAPLUS
 CN Ethanaminium, 2-hydroxy-N,N-dimethyl-N-[2-[(1-oxo-2-propenyl)oxy]ethyl]-,
 chloride, polymer with 1,2,2,6,6-pentamethyl-4-piperidinyl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

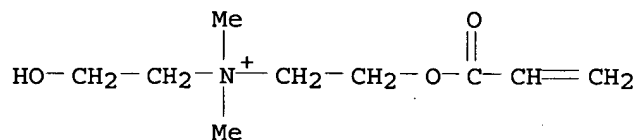
CRN 68548-08-3

CMF C14 H25 N O2



CM 2

CRN 45077-54-1
CMF C9 H18 N O3 . Cl

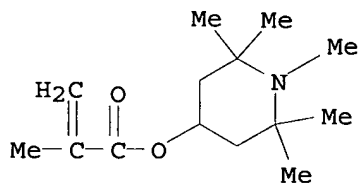


● Cl⁻

RN 249751-63-1 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 1,2,2,6,6-pentamethyl-4-piperidinyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

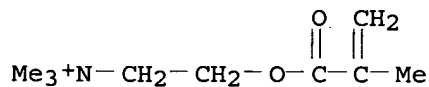
CM 1

CRN 68548-08-3
CMF C14 H25 N O2



CM 2

CRN 5039-78-1
CMF C9 H18 N O2 . Cl

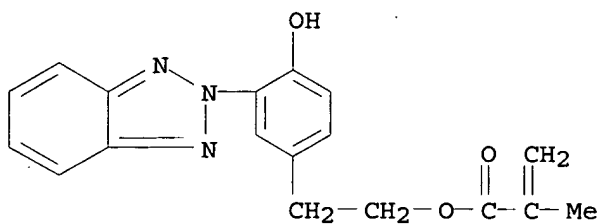


● Cl⁻

RN 249751-74-4 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-[3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

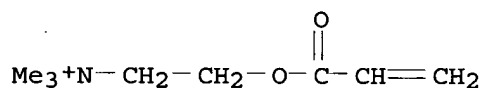
CM 1

CRN 96478-09-0
CMF C18 H17 N3 O3



CM 2

CRN 44992-01-0
CMF C8 H16 N O2 . Cl

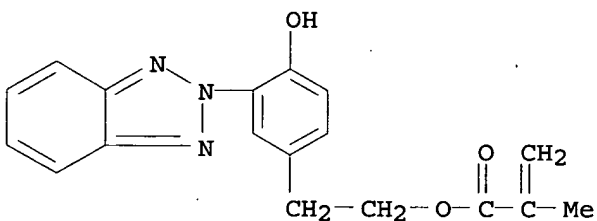


● Cl⁻

RN 249751-76-6 HCAPLUS
CN Ethanaminium, 2-hydroxy-N,N-dimethyl-N-[2-[(1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with 2-[3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

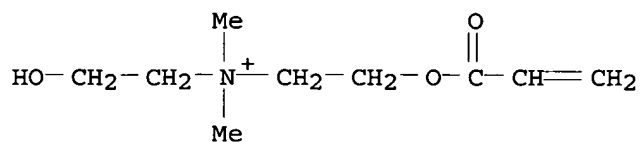
CM 1

CRN 96478-09-0
CMF C18 H17 N3 O3



CM 2

CRN 45077-54-1
CMF C9 H18 N O3 . Cl

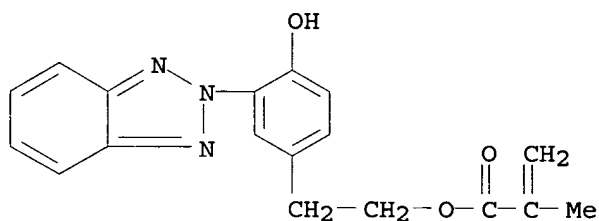


● Cl⁻

RN 249751-78-8 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-[3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

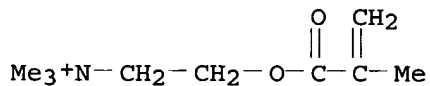
CM 1

CRN 96478-09-0
 CMF C18 H17 N3 O3



CM 2

CRN 5039-78-1
 CMF C9 H18 N O2 . Cl



● Cl⁻

L44 ANSWER 59 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1999:147925 HCAPLUS
 DOCUMENT NUMBER: 130:175334
 TITLE: Ink-jet printing material with improved properties
 INVENTOR(S): Herrmann, Stefan; Hagemann, Joerg; Helling, Guenter; Strobach, Juergen; Weber, Beate
 PATENT ASSIGNEE(S): Agfa-Gevaert A.-G., Germany
 SOURCE: Ger. Offen., 14 pp.
 CODEN: GWXXBX

DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|------------------|----------|
| DE 19752751 | A1 | 19990225 | DE 1997-19752751 | 19971128 |
| JP 11147366 | A2 | 19990602 | JP 1998-247730 | 19980819 |

PRIORITY APPLN. INFO.:
 DE 1997-19736311 A1 19970821
 DE 1997-19752751 A 19971128

AB The ink-jet printing material comprising a support and at least 2 layers on the same side of the support, the under half of the ink-receptor layer contains diffusion- and smear-resistant ink-jet dyes, and the upper half of the ink-receptor layer contains image stabilizers. The image stabilizers are UV absorbers.

IC ICM B41M005-00

ICS C08L089-00; C08L039-06

ICA C08F226-10; C08L023-00; C08L067-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 88004-36-8 170795-00-3

RL: TEM (Technical or engineered material use); USES (Uses)
 (dye in ink-jet printing paper with improved properties)

IT 170795-00-3

RL: TEM (Technical or engineered material use); USES (Uses)
 (dye in ink-jet printing paper with improved properties)

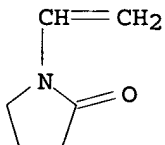
RN 170795-00-3 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, ethyl sulfate, polymer with 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 88-12-0

CMF C6 H9 N O



CM 2

CRN 63101-10-0

CMF C9 H18 N O2 . C2 H5 O4 S

CM 3

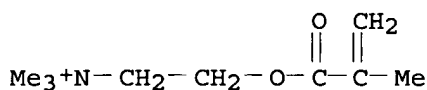
CRN 48028-76-8

CMF C2 H5 O4 S

Et-O-SO₃⁻

CM 4

CRN 33611-56-2
CMF C9 H18 N O2



L44 ANSWER 60 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:70148 HCAPLUS

DOCUMENT NUMBER: 130:160689

TITLE: Ink-jet printing paper having 3-5 pH ink-receiving surface and printing method using same

INVENTOR(S): Kasahara, Kenzo; Mochizuki, Yoshihiro; Saito, Yoichi

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|----------|
| JP 11020306 | A2 | 19990126 | JP 1997-188925 | 19970701 |
| JP 3395882 | B2 | 20030414 | | |

PRIORITY APPLN. INFO.: JP 1997-188925 19970701

AB The printing paper has an ink-receiving layer containing a hydrophilic binder and a cationic dye mordant for an anionic dye, wherein the ink-receiving layer has 3-5 pH on the recording side. The printing method involves using ink-jet ink which has 3-8 pH.

IC ICM B41M005-00
ICS B41M005-00; D21H027-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 1344-28-1, Alumina, uses 7631-86-9, Silica, uses 9002-89-5, Polyvinyl alcohol 26161-33-1 67907-01-1, 2-Methacryloyloxyethyl trimethylammonium chloride-methyl methacrylate-ethyl methacrylate copolymer 220320-70-7

RL: TEM (Technical or engineered material use); USES (Uses)
(ink-receiving layer for ink-jet printing paper)

IT 26161-33-1

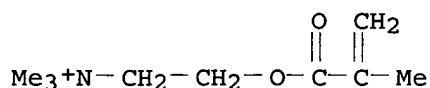
RL: TEM (Technical or engineered material use); USES (Uses)
(ink-receiving layer for ink-jet printing paper)

RN 26161-33-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1
CMF C9 H18 N O2 . Cl

● Cl⁻

L44 ANSWER 61 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:65186 HCAPLUS

DOCUMENT NUMBER: 130:160702

TITLE: Surface treatment method of ink-jet printing paper by using vinylcarbonamide polymer

INVENTOR(S): Sugiyama, Toshiaki; Ono, Motosuke

PATENT ASSIGNEE(S): Hymo Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 11020307 | A2 | 19990126 | JP 1997-192015 | 19970703 |
| PRIORITY APPLN. INFO.: | | | JP 1997-192015 | 19970703 |

AB A coating containing a polymer obtained from CH₂CHNHCOR (R = H, Me) and CH₂:CR₁COABN+R₂R₃R₄X- (A = O, NH; B = C₂H₄, C₃H₆, C₃H₅OH; R₁ = H, Me; R₂, R₃ = C₁-4 alkyl; R₄ = H, Me, benzyl; X- = counter ion) and/or (CH₂:CHCH₂)₂N+Me₂X- is applied on a surface of a paper for the treatment. The treated paper shows high water resistance and good coloring after ink-jet printing.

IC ICM B41M005-00
ICS B41J002-01; D21H019-20; D21H027-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 43

IT 155368-64-2P, Dimethyldiallylammonium chloride-N-vinylformamide copolymer 169222-90-6P 220226-78-8P 220226-80-2P 220226-83-5P
220226-88-0P 220227-01-0P, Acrylamide-acryloyloxyethyltrimethylammonium chloride-N-vinylformamide copolymer 220227-12-3P,
Acryloyloxyethyltrimethylammonium chloride-N-vinylformamide-N-vinyl-2-pyrrolidone copolymer
RL: DEV (Device component use); PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation); USES (Uses)
(surface treatment method of ink-jet printing paper by using vinylcarbonamide polymer)

IT 220226-78-8P 220226-80-2P
RL: DEV (Device component use); PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation); USES (Uses)
(surface treatment method of ink-jet printing paper by using vinylcarbonamide polymer)

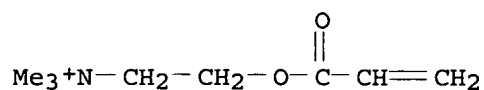
RN 220226-78-8 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with N-ethenylformamide (9CI) (CA INDEX NAME)

CM 1

CRN 44992-01-0

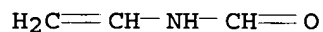
CMF C8 H16 N O2 . Cl



CM 2

CRN 13162-05-5

CMF C3 H5 N O



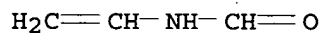
RN 220226-80-2 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with N-ethenylformamide (9CI) (CA INDEX NAME)

CM 1

CRN 13162-05-5

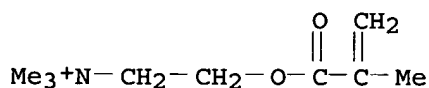
CMF C3 H5 N O



CM 2

CRN 5039-78-1

CMF C9 H18 N O2 . Cl



L44 ANSWER 62 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:542885 HCAPLUS

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

DOCUMENT NUMBER: 129:237685
 TITLE: Ink-jet recording paper and ink-jet recording method
 INVENTOR(S): Kasahara, Kenzo; Tsuchiya, Masaru; Mochizuki, Yoshihiro; Onodera, Akira
 PATENT ASSIGNEE(S): Konica Co., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| JP 10217601 | A2 | 19980818 | JP 1997-23808 | 19970206 |
| US 6165606 | A | 20001226 | US 1998-17066 | 19980202 |
| PRIORITY APPLN. INFO.: | | | JP 1997-23808 | A 19970206 |

AB The title recording paper has a recording layer containing a hydrophilic binder, inorg. particles with an average particle size of the primary particles ≤ 300 nm and a water-soluble cationic mordant of an average mol. amount $\leq 50,000$. Use of cationic mordant can achieve high water-resistance and can prevent the aggregation of the inorg. particles and polymer to assure the gloss surface.

IC ICM B41M005-00
 ICS B41J002-01; D21H027-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 212909-22-3 212909-23-4
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (mordant contained in recording layer for ink-jet printing paper)

IT 212909-22-3
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (mordant contained in recording layer for ink-jet printing paper)

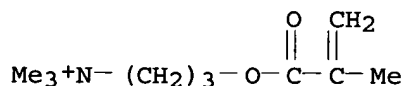
RN 212909-22-3 HCAPLUS

CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 55918-38-2

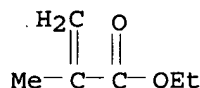
CMF C10 H20 N O2 . Cl



● Cl⁻

CM 2

CRN 97-63-2
CMF C6 H10 O2



L44 ANSWER 63 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:501091 HCAPLUS

DOCUMENT NUMBER: 129:209383

TITLE: Ink-jet recording sheets and manufacture thereof, providing highly water-resistant images

INVENTOR(S): Sakata, Kanji; Kanawa, Kazuhiko; Fukuda, Kenji

PATENT ASSIGNEE(S): Tokuyama K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

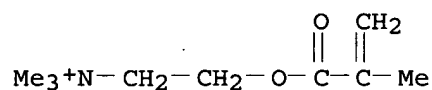
PATENT INFORMATION:

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|---|--------------|--------------|-----------------|----------|
| | JP 10203005 | A2 | 19980804 | JP 1997-9424 | 19970122 |
| PRIORITY APPLN. INFO.: | | | | JP 1997-9424 | 19970122 |
| AB | The title sheets have an ink recording layer from 100 parts water-soluble polymers 100 and 3.0-65 parts crosslinked vinyl polymers having ammonium groups. | | | | |
| IC | ICM B41M005-00 | | | | |
| | ICS D21H027-00 | | | | |
| CC | 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| IT | 26062-79-3P, Diallyldimethylammonium chloride polymer 211995-23-2P | | | | |
| | 211995-24-3P | 211995-25-4P | 211995-26-5P | 211995-27-6P | |
| | 211995-28-7P | 211995-29-8P | 211995-30-1P | 212138-12-0P | |
| RL: | IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (ink-jet recording sheets and manufacture thereof, providing highly water-resistant images) | | | | |
| IT | 211995-23-2P 211995-24-3P | | | | |
| RL: | IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (ink-jet recording sheets and manufacture thereof, providing highly water-resistant images) | | | | |
| RN | 211995-23-2 HCAPLUS | | | | |
| CN | Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with oxydi-2,1-ethanediyl bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME) | | | | |

CM 1

CRN 5039-78-1

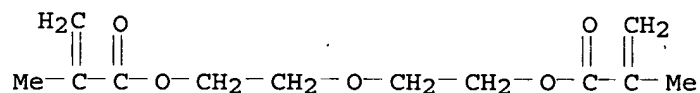
CMF C9 H18 N O2 . Cl



● Cl⁻

CM 2

CRN 2358-84-1
CMF C12 H18 O5

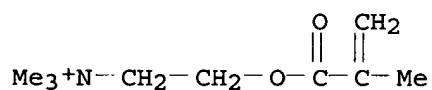


RN 211995-24-3 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 1,2-ethanediylbis(oxy-2,1-ethanediyl) bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

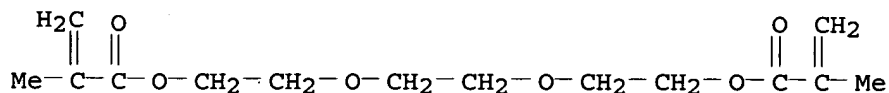
CRN 5039-78-1
CMF C9 H18 N O2 . Cl



● Cl⁻

CM 2

CRN 109-16-0
CMF C14 H22 O6

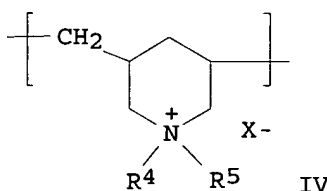
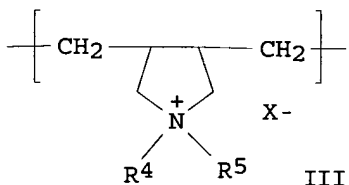
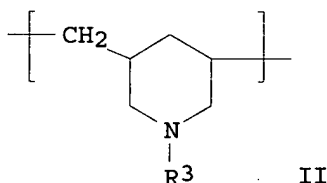
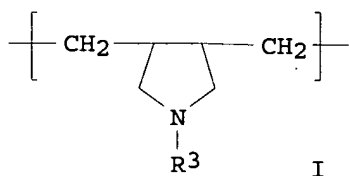


L44 ANSWER 64 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:402631 HCAPLUS
DOCUMENT NUMBER: 129:101982

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

TITLE: Ink-jet recording medium containing amphoteric polymer
 INVENTOR(S): Hayashi, Ikuo
 PATENT ASSIGNEE(S): Nitto Boseki Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------------|------|----------|-----------------|----------|
| JP 10166718 | A2 | 19980623 | JP 1996-340366 | 19961206 |
| JP 3595995 | B2 | 20041202 | | |
| PRIORITY APPLN. INFO.: GI | | | JP 1996-340366 | 19961206 |



AB The title recording medium contains an amphoteric polymer comprising ≥ 1 cationic unit selected from allylamine-type units $\text{CH}_2\text{CH}(\text{CH}_2\text{NR}_1\text{R}_2)$, I-IV ($\text{R}_1, \text{R}_2 = \text{H, Me, Et, cyclohexyl}$; $\text{R}_3\text{-5} = \text{H, Me, Et, benzyl}$; $\text{X} = \text{anion}$), and their inorg. or org acid salts and ≥ 1 anionic unit selected from $\text{CH}(\text{CO}_2\text{Y})\text{CR}_6(\text{CO}_2\text{Y})$, $\text{CH}(\text{CO}_2\text{Y})\text{CH}(\text{CO}_2\text{Y})$, $\text{CH}_2\text{C}(\text{CO}_2\text{Y})_2$, and $\text{CH}_2\text{C}(\text{CO}_2\text{Y})(\text{CH}_2\text{CO}_2\text{Y})$ ($\text{R}_6 = \text{H, Me}$; $\text{Y} = \text{H, Na, K, NH}_4, 1/2\text{Ca, } 1/2\text{Mg, } 1/2\text{Fe, } 1/3\text{Al, } 1/3\text{Fe}$). The medium may addnl. contain ≥ 1 selected from nonionic, cationic, and anionic polymers and amphoteric polymers other than the above polymer. An ink-jet recording method using the medium and dye-containing aqueous inks is also claimed. The medium provides high-quality images with good water resistance and lightfastness by using aqueous inks.

IC ICM B41M005-00

ICS B05D005-04; C08J007-04; D21H027-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 26161-33-1 104077-72-7

RL: DEV (Device component use); USES (Uses)
 (ink-jet printing paper containing amphoteric polymer)

IT 26161-33-1 104077-72-7

RL: DEV (Device component use); USES (Uses)
(ink-jet printing paper containing amphoteric polymer)

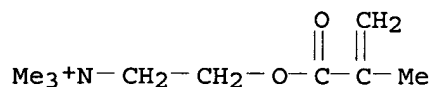
RN 26161-33-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl



● Cl⁻

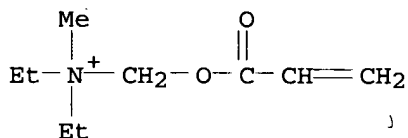
RN 104077-72-7 HCAPLUS

CN Ethanaminium, N-ethyl-N-methyl-N-[[[(1-oxo-2-propenyl)oxy]methyl]-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 45004-72-6

CMF C9 H18 N O2 . Cl

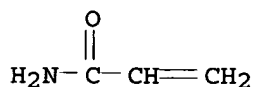


● Cl⁻

CM 2

CRN 79-06-1

CMF C3 H5 N O



L44 ANSWER 65 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

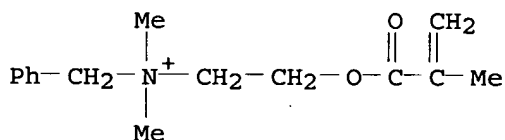
ACCESSION NUMBER: 1998:392294 HCAPLUS

DOCUMENT NUMBER: 129:129023

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

TITLE: Water-resistant ink-jet printing sheet
 INVENTOR(S): Furukawa, Akira; Ishimaru, Tomoko
 PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

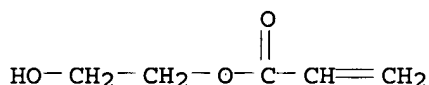
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| JP 10157283 | A2 | 19980616 | JP 1996-324213 | 19961204 |
| PRIORITY APPLN. INFO.: | | | JP 1996-324213 | 19961204 |
| AB An ink-jet printing sheet comprises an ink-receiving layer on a support, wherein the ink-receiving layer contains a polymer having a functional group -COCH ₂ COR ₁ (R ₁ = alkyl). The polymer may be crosslinked with an aldehyde or N-methylol crosslinking agent. The sheet shows excellent glossiness, ink-reception and water-resistance. | | | | |
| IC ICM B41M005-00 | | | | |
| ICS B05D005-04; D21H027-00 | | | | |
| CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| IT 27516-33-2 56398-91-5 210093-93-9 210093-94-0 210093-95-1 | | | | |
| 210093-96-2 210093-99-5 210094-01-2 210094-03-4 210094-05-6 | | | | |
| 210094-09-0 210094-11-4 210094-13-6 210094-15-8 210094-17-0 | | | | |
| 210094-19-2 210094-20-5 210094-21-6 210094-22-7 210094-23-8 | | | | |
| 210094-24-9 210094-25-0 210094-26-1 210287-25-5 | | | | |
| 210287-26-6 210287-27-7 210287-28-8 210287-29-9 | | | | |
| RL: DEV (Device component use); USES (Uses) | | | | |
| (in ink-receiving layer of water-resistant ink-jet printing sheet) | | | | |
| IT 210094-25-0 | | | | |
| RL: DEV (Device component use); USES (Uses) | | | | |
| (in ink-receiving layer of water-resistant ink-jet printing sheet) | | | | |
| RN 210094-25-0 HCAPLUS | | | | |
| CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with 2-hydroxyethyl 2-propenoate (9CI) (CA INDEX NAME) | | | | |
| CM 1 | | | | |
| CRN 46917-07-1 | | | | |
| CMF C15 H22 N O2 . Cl | | | | |



● Cl⁻

CM 2

CRN 818-61-1
CMF C5 H8 O3



L44 ANSWER 66 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:392293 HCAPLUS
DOCUMENT NUMBER: 129:129022
TITLE: Ink-jet printing sheets for water-based ink
INVENTOR(S): Furukawa, Akira
PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 10157282 | A2 | 19980616 | JP 1996-324211 | 19961204 |
| PRIORITY APPLN. INFO.: | | | JP 1996-324211 | 19961204 |

AB In the ink-jet printing sheet comprising an ink-receiving layer, the ink-receiving layer comprises a polymer having -P+(R1)(R2)(R3)(X-) group (R1-3 = alkyl, aryl; X = anion) and a crosslinking agent to make the ink-receiving layer water-resistant. The printing sheet shows the good printed image, ink-absorbance, ink-fixing, surface gloss, water-resistance, light-resistance, and little color change of the non-printed area over time.

IC ICM B41M005-00
ICS B05D005-04; D21H027-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 2271-93-4P 13236-02-7P 16096-31-4P 26374-25-4P 26403-72-5P
57116-45-7P 69400-12-0P 210163-43-2P 210163-44-3P 210163-45-4P
210163-46-5P 210163-47-6P 210163-48-7P 210163-50-1P 210163-51-2P
210163-53-4P 210163-54-5P 210163-55-6P 210163-56-7P 210163-59-0P
210163-61-4P 210163-64-7P 210163-66-9P 210163-68-1P 210163-71-6P
210163-73-8P 210163-76-1P 210163-78-3P 210163-79-4P
210163-80-7P 210163-81-8P 210285-85-1P
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(ink-receiving layer of ink-jet printing sheet)

IT 210163-73-8P
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(ink-receiving layer of ink-jet printing sheet)

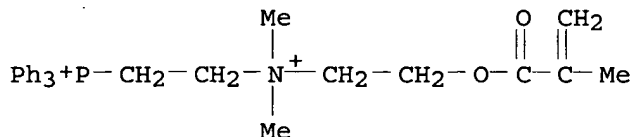
RN 210163-73-8 HCAPLUS

CN Ethanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-2-(triphenylphosphonio)-, dibromide, polymer with N-(hydroxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 210163-72-7

CMF C28 H34 N O2 P . 2 Br

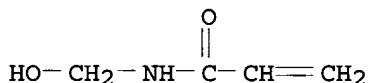


● 2 Br⁻

CM 2

CRN 924-42-5

CMF C4 H7 N O2



L44 ANSWER 67 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:25417 HCAPLUS

DOCUMENT NUMBER: 128:129363

TITLE: Paper-surface treating agents for improving water resistance and light resistance of ink-jet printed images

INVENTOR(S): Sugiyama, Toshiaki

PATENT ASSIGNEE(S): Hymo Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

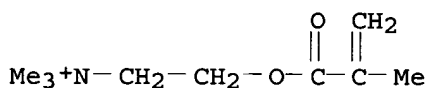
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 10001518 | A2 | 19980106 | JP 1996-174380 | 19960614 |
| PRIORITY APPLN. INFO.: | | | JP 1996-174380 | 19960614 |

AB The title agents are H₂O-soluble acrylonitrile (AN) copolymers with quaternary compds. (CH₂:CR₁COZZ₁)R₂R₃R₄N⁺ X⁻ or (CH₂:CR₅CH₂)(CH₂:CR₆CH₂)R₇R₈N⁺ X⁻ (Z = O, NH; Z₁ = ethylene, propylene; R₁ = H, Me; R₂, R₃, R₅-R₈ = Me, Et; R₄ = H, Me, Et, Bz; X⁻ = anion). Thus, 2 mol.% AN and 98 mol.% CH₂:CHCO₂CH₂CH₂N⁺Me₃Cl⁻ were polymerized in the presence of 2,2'-azobis(amidinopropane)-2HCl, NaHSO₄, and 2-mercaptoethanol to obtain a polymer with intrinsic viscosity 1.2 dL/g in 1 N aqueous NaCl at 25°. A dispersion comprising poly(vinyl alc.) 45, the above polymer 5, powdered SiO₂, Zeosil 1100V 50 and H₂O 400 g was applied on paper, which gave H₂O- and light-resistant printing images.

IC ICM C08F220-34

ICS B41M005-00; C08F220-44; C08F220-60; D21H019-20; B05D005-04
 CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
 Section cross-reference(s): 74
 IT 26777-63-9P, Acrylonitrile-dimethylaminoethyl methacrylate copolymer
 29564-17-8P, Acrylonitrile-dimethyldiallylammonium chloride copolymer
 36347-55-4P, Acrylonitrile-Methacryloyloxyethyltrimethylammonium
 chloride copolymer 51343-68-1P, Acrylonitrile-Dimethylaminoethyl
 acrylate copolymer 121436-72-4P, Acrylonitrile-
 Acryloyloxyethyltrimethylammonium chloride copolymer 201988-72-9P
 , Acrylonitrile-Acryloyloxyethylbenzyltrimethylammonium chloride copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (cationic monomer-acrylonitrile copolymers as **paper**-surface
 treating agents for water- and light-resistant images in **ink-**
jet printing)
 IT 36347-55-4P, Acrylonitrile-Methacryloyloxyethyltrimethylammonium
 chloride copolymer 121436-72-4P, Acrylonitrile-
 Acryloyloxyethyltrimethylammonium chloride copolymer 201988-72-9P
 , Acrylonitrile-Acryloyloxyethylbenzyltrimethylammonium chloride copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (cationic monomer-acrylonitrile copolymers as **paper**-surface
 treating agents for water- and light-resistant images in **ink-**
jet printing)
 RN 36347-55-4 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,
 chloride, polymer with 2-propenenitrile (9CI) (CA INDEX NAME)
 CM 1
 CRN 5039-78-1
 CMF C9 H18 N O2 . Cl



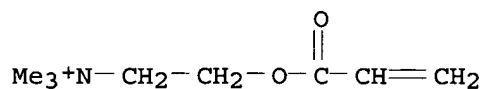
● Cl⁻

CM 2
 CRN 107-13-1
 CMF C3 H3 N



RN 121436-72-4 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride,
 polymer with 2-propenenitrile (9CI) (CA INDEX NAME)
 CM 1

CRN 44992-01-0
CMF C8 H16 N O2 . Cl



● Cl⁻

CM 2

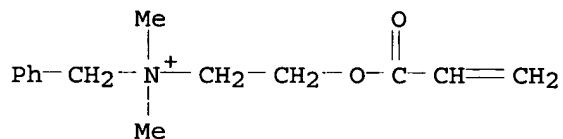
CRN 107-13-1
CMF C3 H3 N



RN 201988-72-9 HCAPLUS
CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 46830-22-2
CMF C14 H20 N O2 . Cl



● Cl⁻

CM 2

CRN 107-13-1
CMF C3 H3 N

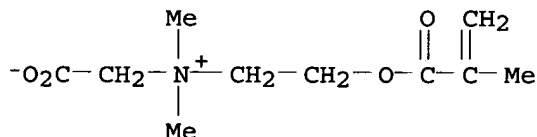


L44 ANSWER 68 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:174814 HCAPLUS
DOCUMENT NUMBER: 126:179079
TITLE: Ink-jet recording sheets having highly transparent ink

receptor layer and giving images of rapid fixation and good blocking resistance

INVENTOR(S): Kurata, Noriaki
 PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

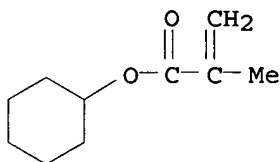
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| JP 09001921 | A2 | 19970107 | JP 1995-150296 | 19950616 |
| PRIORITY APPLN. INFO.: | | | JP 1995-150296 | 19950616 |
| AB The title sheets comprise a hydrophobic support (e.g., polyethylene-coated paper) and an ink receptor layer containing gelatin and polymers of at least CH ₂ :CR ₁ CO ₂ R ₂ (R ₁ = H, C ₁ -4 alkyl; R ₂ = H, alkali metal, ammonium, C ₁ -18 alkyl, alkenyl) and optionally water-soluble polymers. | | | | |
| IC ICM B41M005-00 | | | | |
| ICS B32B009-02; B32B027-06; B32B027-30; D21H019-20; D21H019-10 | | | | |
| CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| IT 7585-39-9, β-Cyclodextrin 9002-88-4, Polyethylene 9002-89-5, Poly(vinyl alcohol) 9003-39-8, Poly(vinylpyrrolidone) 9004-32-4, Carboxymethyl cellulose 25086-15-1, Methacrylic acid-methyl methacrylate copolymer 28572-98-7, Ethyl methacrylate-methacrylic acid copolymer 31018-13-0, N,N-Dimethylacrylamide-methyl methacrylate copolymer 187090-37-5 | | | | |
| RL: TEM (Technical or engineered material use); USES (Uses) (ink-jet recording sheets having highly transparent ink receptor layer and giving images of rapid fixation and good blocking resistance) | | | | |
| IT 187090-37-5 | | | | |
| RL: TEM (Technical or engineered material use); USES (Uses) (ink-jet recording sheets having highly transparent ink receptor layer and giving images of rapid fixation and good blocking resistance) | | | | |
| RN 187090-37-5 HCAPLUS | | | | |
| CN Ethanaminium, N-(carboxymethyl)-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, inner salt, polymer with cyclohexyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME) | | | | |
| CM 1 | | | | |
| CRN 62723-61-9 | | | | |
| CMF C10 H17 N O4 | | | | |



CM 2

CRN 101-43-9

CMF C10 H16 O2



L44 ANSWER 69 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:591426 HCAPLUS

DOCUMENT NUMBER: 121:191426

TITLE: Recording sheets with improved ink-absorbing properties and water resistance

INVENTOR(S): Mikami, Tomoko; Nakahara, Katsuji; Matsura, Kazuo

PATENT ASSIGNEE(S): Toray Industries, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 06143798 | A2 | 19940524 | JP 1992-299829 | 19921110 |
| PRIORITY APPLN. INFO.: | | | JP 1992-299829 | 19921110 |

AB The title recording sheets comprise a plastic film coated with a dye-fixing layer containing a quaternary ammonium salt polymer and a cation-modified poly(vinyl alc.) and overcoated with a dye-permeable and ink-absorbing layer containing a polymer having (neutralized) anionic groups and water-soluble polymers. The sheets show good ink-absorbing properties and water resistance and provide high quality images. Thus, a PET film was coated with a composition containing 2-hydroxyethyl acrylate-2-hydroxy-3-methacryloxypropyltrimethylammonium chloride copolymer and saponified trimethyl-(3-methacrylamidopropyl)ammonium chloride-vinyl acetate copolymer and overcoated with a composition containing Me acrylate-styrenesulfonic acid copolymer, poly(vinyl alc.), poly(vinylpyrrolidone), and polyethylene glycol to give a recording sheet.

IC ICM B41M005-00
ICS B32B027-18

ICA B32B027-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 9002-89-5, Poly(vinyl alcohol) 9003-39-8, Luviskol K 90 9080-79-9, Chemistat 6120 25322-68-3, Polyethylene glycol 58068-11-4, 2-Hydroxyethyl acrylate-2-hydroxy-3-methacryloxypropyltrimethylammonium chloride copolymer 86468-50-0, Methyl acrylate-styrenesulfonic acid copolymer 92529-66-3, Saftomer ST 2100

RL: USES (Uses)
(ink-jet plastic printing sheets containing)

IT 58068-11-4, 2-Hydroxyethyl acrylate-2-hydroxy-3-methacryloxypropyltrimethylammonium chloride copolymer

RL: USES (Uses)
(ink-jet plastic printing sheets containing)

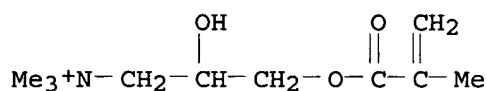
RN 58068-11-4 HCAPLUS

CN 1-Propanaminium, 2-hydroxy-N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-hydroxyethyl 2-propenoate (9CI)
(CA INDEX NAME)

CM 1

CRN 13052-11-4

CMF C10 H20 N O3 . Cl

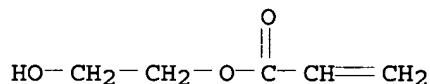


● Cl⁻

CM 2

CRN 818-61-1

CMF C5 H8 O3



L44 ANSWER 70 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:65940 HCAPLUS

DOCUMENT NUMBER: 120:65940

TITLE: Recording sheets for ink-jet recording

INVENTOR(S): Nakahara, Katsuji; Mikami, Tomoko; Matsura, Kazuo

PATENT ASSIGNEE(S): Toray Industries, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

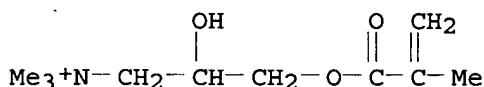
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| JP 05131742 | A2 | 19930528 | JP 1991-297441 | 19911113 |
| PRIORITY APPLN. INFO.: | | | JP 1991-297441 | 19911113 |
| AB The recording sheets consist of a support successively coated with a dye-fixing layer based on a quaternary ammonium salt polymer and an ink-absorbing layer. The sheets show good ink absorption, water resistance, and abrasion resistance and provide clear and high-d. images. | | | | |
| IC ICM B41M005-00 | | | | |
| ICS B32B007-02; B32B027-00 | | | | |
| CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | | |
| IT 25609-94-3 59979-31-6, Elecond PQ 50B 60649-29-8, Chemistat 6200 98845-73-9, Chemistat 6300H 118216-34-5, Colcoat NR 121 | | | | |

RL: USES (Uses)
 (ink-jet printing sheets containing, for
 water- and abrasion-resistant image formation)
 IT 25609-94-3
 RL: USES (Uses)
 (ink-jet printing sheets containing, for
 water- and abrasion-resistant image formation)
 RN 25609-94-3 HCAPLUS
 CN 1-Propanaminium, 2-hydroxy-N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 13052-11-4
 CMF C10 H20 N O3 . Cl



● Cl⁻

L44 ANSWER 71 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1989:222640 HCAPLUS

DOCUMENT NUMBER: 110:222640

TITLE: Recording sheet containing cationic polymer for ink-jet printing

INVENTOR(S): Kojima, Yutaka; Omori, Takashi

PATENT ASSIGNEE(S): Jujo Paper Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|----------|
| JP 63162275 | A2 | 19880705 | JP 1986-311737 | 19861226 |
| JP 2514194 | B2 | 19960710 | | |

PRIORITY APPLN. INFO.: JP 1986-311737 19861226

AB The title recording sheet, which is printed with a H2O-soluble dye-containing ink

by using an ink-jet printer, comprises a cationic polymer and a cationic surfactant applied on a support or impregnated in a support. Preferably, the polymer contains a tertiary amine and/or quaternary ammonium salt, and the surfactant may be an alkylamine or a quaternary ammonium salt of oxyethylene-containing amine. This recording sheet shows excellent color d. and H2O resistance and reduced color smearing.

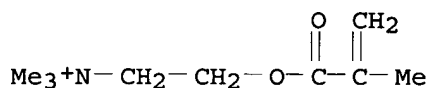
IC ICM B41M005-00

ICS D21H005-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 112-00-5, Cation BB 683-10-3, Amphitol 20BS 26062-79-3, PASH-10L

26161-33-1 28880-55-9 110507-15-8
 RL: USES (Uses)
 (ink-jet recording sheet containing)
 IT 26161-33-1
 RL: USES (Uses)
 (ink-jet recording sheet containing)
 RN 26161-33-1 HCAPLUS
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,
 chloride, homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 5039-78-1
 CMF C9 H18 N O2 . Cl



● Cl⁻

L44 ANSWER 72 OF 72 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1987:166320 HCAPLUS
 DOCUMENT NUMBER: 106:166320
 TITLE: Recording sheet for ink-jet printer
 INVENTOR(S): Matsunaga, Teruo; Natori, Kazunobu; Kanai, Tamaki
 PATENT ASSIGNEE(S): Teijin Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|--|------------|-----------------|----------|
| JP 61235182 | A2 | 19861020 | JP 1985-75356 | 19850411 |
| PRIORITY APPLN. INFO.: | | | JP 1985-75356 | 19850411 |
| AB A recording sheet for ink-jet printing is obtained by coating 1 or both sides of a transparent support with a poly(vinyl alc.) having cationic groups and a saponification degree of 30-90%. The ink drying time is shortened and high-quality recording is possible. | | | | |
| IC | ICM | B41M005-00 | | |
| | ICS | D21H005-00 | | |
| CC | 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) | | | |
| IT | 72199-13-4D, hydrolyzed | | | |
| | RL: USES (Uses) (coatings, on ink-jet recording receptor sheets) | | | |
| IT | 72199-13-4D, hydrolyzed | | | |
| | RL: USES (Uses) (coatings, on ink-jet recording receptor sheets) | | | |

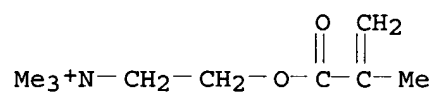
RN 72199-13-4 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl



● Cl⁻

CM 2

CRN 108-05-4

CMF C4 H6 O2



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